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Federal Regulation of Pharmaceuticals in the United States and Canada

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I. INTRODUCTION

Since the 1930s, the pharmaceutical industries in Canada and the United States have been subject to increasing federal regulation designed to protect public health and safety. The development of these two drug regulatory systems has often paralleled each other. While there are many similarities between these two regulatory schemes, there are also significant and deliberate differences. This Article will examine these similarities and differences.

This discussion begins with a review of the historical development of drug regulation in the United States and Canada. Section III follows with an analysis of the basis for federal jurisdiction, and a comparison of the administrative and regulatory framework within which the pharmaceutical regulations operate in each country. Section IV explains some of the most important areas of drug regulation, such as the approval process for new

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drugs, administrative inspections, labeling requirements, and good manufacturing practices. In some of these key areas, such as the new drug approval process, the regulations in the United States and Canada are very similar. In other areas, however, there are distinct differences in approach. Section V follows with an examination of certain issues currently affecting pharmaceutical regulation. The first of these is the North American Free Trade Agreement (NAFTA), which has had considerable impact on Canadian drug regulation, particularly in the area of patents. A second issue is the struggle in both the United States and Canada with federal budget deficits and the resulting search for methods to streamline the regulatory processes. Some of these efforts have impacted pharmaceutical regulation. Finally, this paper concludes with an analysis of the relationship between government regulators and the regulated industry from the standpoint of cultural and philosophical differences between the United States and Canada.

II. HISTORICAL DEVELOPMENT OF PHARMACEUTICAL REGULATION

Drug regulation, often paired with food regulation, has a long tradition in North America. Drug laws in both the United States and Canada have their roots in English law and arose from a common concern about safety and fraud prevention.¹ In the 19th century, there was widespread adulteration of food and drugs.² Nonetheless, it was not until 1862, after a druggist's assistant in a small English town poisoned 400 people by accidentally putting arsenic in some peppermint lozenges, that the British Parliament passed the Bill for Preventing Adulteration of Articles of Food and Drink.³ The history of drug regulation has often repeated this pattern of enacting legislation in response to public outcry following drug-related tragedies.⁴

Canada's first legislation "to prevent the Adulteration of Food, Drink and Drugs" was the Inland Revenue Act of 1875, which focused on concerns about adulterated alcohol.⁵ Food and

1. See generally Wallace F. Janssen, *America's First Food & Drug Laws*, 30 FOOD DRUG COSMETIC L.J. 665 (1975).

2. See William Wassenaar, *Drug Regulation in Canada*, 2 LEGAL MED. Q. 209 (1978).

3. See *id.* at 209.

4. See *infra* notes 24, 34-37 and accompanying text.

5. See ROBERT EMMET CURRAN, *CANADA'S FOOD & DRUG LAWS* 143-45 (1953).

drug regulation soon gained an importance independent of adulterated alcohol and were removed from the Inland Revenue Act and enacted into separate legislation as The Adulteration Act of 1884 ("Adulteration Act").⁶ The Adulteration Act set standards for strength, quality and purity, and made it a criminal offense to manufacture or sell adulterated food or drugs.⁷ Other members of the Commonwealth modeled their food and drug legislation on the Adulteration Act.⁸ When the United States enacted its first national food and drug act, adulteration was treated in a manner substantially similar to the Canadian model.⁹

In the United States, the first national food and drug legislation was the Pure Food and Drug Act of 1906 ("Pure Food and Drug Act").¹⁰ The Pure Food and Drug Act passed with overwhelming support in Congress, despite opposition from food and drug manufacturers concerned that it would curtail business.¹¹ Like the Adulteration Act, the U.S. law required all drugs to meet standards for strength, quality and purity.¹² The prohibition on misbranding barred any false or misleading statements on the label regarding the drug or its ingredients.¹³ For a small number of drugs considered especially dangerous, the law required the label to state the ingredients and quantities.¹⁴

The Pure Food and Drug Act had significant problems. While the Act gave consumers some protection from fraudulent patent medicines, it did not adequately assure safe and effective

6. *See id.* at 145.

7. *See id.* at 147.

8. *See id.*

9. *See id.*

10. Pure Food and Drug Act of 1906, Pub. L. No. 59-384, 34 Stat. 768 (1906). Much has been written about the history of drug regulation in the United States. *See generally* JOHN B. BLAKE, *SAFEGUARDING THE PUBLIC: HISTORICAL ASPECTS OF MEDICINAL DRUG CONTROL* (1970); HENRY G. GRABOWSKI & JOHN M. VERNON, *THE REGULATION OF PHARMACEUTICALS: BALANCING THE BENEFITS & RISKS* 1-13 (1983); HARRY EDWARD NEAL, *THE PROTECTORS: THE STORY OF THE FOOD & DRUG ADMINISTRATION* (1968); Paul J. Quirk, *Food & Drug Administration*, in *THE POLITICS OF REGULATIONS* 191-235 (James Q. Wilson ed., 1980); PETER TEMIN, *TAKING YOUR MEDICINE: DRUG REGULATION IN THE UNITED STATES* (1980).

11. *See* Wallace F. Janssen, *The U.S. Food & Drug Law: How it Came; How it Works*, 35 *FOOD DRUG COSM. L.J.* 132, 134 (1980).

12. *See* Pure Food and Drug Act of 1906; *see also* James Harvey Young, *Drugs & the 1906 Law*, in *SAFEGUARDING THE PUBLIC: HISTORICAL ASPECTS OF MEDICINAL DRUG CONTROL* 148, 150 (John B. Blake ed., 1970).

13. *See* Pure Food and Drug Act of 1906; *see also* Young, *supra* note 12, at 148.

14. *See* Pure Food and Drug Act of 1906; *see also* Young, *supra* note 12, at 148.

products.¹⁵ The Act did not authorize the ban of unsafe drugs,¹⁶ or cover cosmetics.¹⁷ Additionally, labels for most drugs were not required to identify the contents.¹⁸ Moreover, therapeutic claims were exempt from the requirements regarding false and misleading statements.¹⁹

In 1912, the U.S. Congress passed the Sherley Amendment, which attempted to remedy the problem of therapeutic claim exemptions by prohibiting therapeutic claims that were false or misleading; however, it also added the requirement that the claim be fraudulent.²⁰ This requirement of fraudulent intent shifted the burden of proof to the government and effectively nullified the Sherley Amendment.²¹

The sulfanilamide disaster of 1937 brought public and congressional attention to the limitations of the U.S. food and drug regulations. Sulfa drugs were in widespread use in the United States during the 1930s, and one sulfa drug manufacturer decided to produce a liquid form using antifreeze.²² No clinical tests were made prior to its marketing, and 107 reported deaths resulted.²³ Congress was finally spurred into action, and passed the Food, Drug and Cosmetic Act of 1938 (FDCA).²⁴ The FDCA addressed the common industry practice of making false therapeutic claims by eliminating the need to prove fraud and also authorized factory inspections, seizures and injunctions.²⁵ The FDCA also heralded the modern age of drug regulation by requiring the drug manufacturer to submit a New Drug Application (NDA) to the Food and Drug Administration (FDA) before the FDA would allow the product to enter the stream of interstate commerce. Unless the FDA issued an order within a specified period of time stating that the NDA was insufficient to establish the safety of the

15. Michael P. VanHuysen, Comment, *Reform of the New Drug Approval Process*, 49 ADMIN. L. REV. 481 (1997).

16. See JAMES ROBERT NIELSON, HANDBOOK OF FEDERAL DRUG LAW 4 (1992).

17. See *id.* at 6.

18. See *id.* at 4.

19. See M. L. Yakowitz, *The Evolution of the Drug Laws of the United States, 1906-1964*, 19 FOOD DRUG & COSM. L.J. 296 (1964).

20. See Young, *supra* note 12, at 149.

21. See *id.*

22. See NIELSON, *supra* note 16, at 6.

23. See *id.*

24. See Federal Food, Drug, and Cosmetic Act of 1938, 21 U.S.C. § 301 (1994).

25. See Myron L. Marlin, *Treatment INDs: A Faster Route to Drug Approval?*, 39 AM. U. L. REV. 171, 176 (1989).

drug, the NDA would be automatically approved and the drug could proceed to market.²⁶

The FDCA required that new drugs be adequately tested and shown to be safe, i.e., nontoxic when used in accordance with the conditions set forth on the label.²⁷ The FDCA required that labels provide adequate directions for use to the consumer.²⁸ However, the directions for use of some drugs were so complex that it was not feasible to include this information on the labeling.²⁹ This problem was resolved by the Durham-Humphrey Amendment of 1951, which exempted certain drugs from the labeling requirement.³⁰ These drugs, which could be safely used only under the supervision of a physician, required instead, the legend: "Caution: Federal law prohibits dispensing without a prescription."³¹

In Canada, it was not until 1951 that it became mandatory under the Food and Drugs Act that information about new drugs be submitted to the Food and Drugs Divisions of the Department of Health and Welfare (predecessor to the Health Protection Branch) prior to marketing.³² This legislation was prompted by a concern that the clinical testing being conducted was insufficient to ensure safety for human use, and by concerns that many drug manufacturers were using Canada as a testing ground for American drugs.³³

The next major revision to the drug laws of both the United States and Canada came in 1962 as the result of another drug-related tragedy, this time involving thalidomide. Thalidomide was a sleeping pill developed and widely used in Europe.³⁴ A researcher, conducting an investigative study of thalidomide drug use in the United States, discovered that severe birth defects could

26. See COMMITTEE ON SCIENCE & TECHNOLOGY, U.S. HOUSE OF REPRESENTATIVES (96TH CONGRESS), THE FOOD & DRUG ADMINISTRATION'S PROCESS FOR APPROVING NEW DRUGS 5 (Nov. 1980) [hereinafter SCI. & TECH. COMMITTEE].

27. See NIELSON, *supra* note 16, at 6.

28. See *id.* "Label" includes the package insert and any other written, printed or graphic materials accompanying the drug. See *id.*

29. See *id.* at 7.

30. See *id.*

31. 21 U.S.C. § 353 (1994). See also NIELSON, *supra* note 16, at 7.

32. JOEL LEXCHIN, M.D., THE REAL PUSHERS: A CRITICAL ANALYSIS OF THE CANADIAN DRUG INDUSTRY 183 (1984).

33. See *id.*

34. See NIELSON, *supra* note 16, at 8.

result if pregnant women took the drug in their first trimester.³⁵ The study showed that over 1000 children were born in Europe with severe birth defects as a result of their mothers ingesting thalidomide during pregnancy.³⁶

The U.S. Congress responded to this tragedy by passing the 1962 Kefauver-Harris Amendments, which substantially broadened the powers of the FDA. The 1962 Amendments required drug manufacturers to prove all new drugs to be both safe and effective by "substantial evidence," before the FDA would grant marketing approval.³⁷ Good Manufacturing Practices (GMP) were established, and any drug manufactured without adherence to these standards was presumed adulterated.³⁸ The FDA was given authority over prescription drug advertising.³⁹ The modern procedures for New Drug Applications (NDA) and for Investigational New Drugs (IND) were established.⁴⁰

Similarly the Canadian Food and Drugs Act was revised 1963 in response to the thalidomide experience.⁴¹ The Canadian law paralleled that of its U.S. counterpart, requiring manufacturers to submit "substantial evidence of the clinical effectiveness of the new drug . . . under the conditions of use recommended."⁴²

III. CURRENT REGULATORY FRAMEWORK

A. Federal Jurisdiction

In both the United States and Canada, the regulation of pharmaceuticals by the federal government is based on Constitutional authority, but the source of that authority differs just as the Constitutions of the two countries differ. The subject of pharmaceutical regulation is not specifically addressed in the constitutions of either the United States or Canada. Federal authority for pharmaceutical regulation must therefore be found under other federal powers.

35. *See id.*

36. *See* Marlin, *supra* note 25, at 176. *See generally* TEMIN, *supra* note 10, at 123-24.

37. *See* NIELSON, *supra* note 16, at 8.

38. *See id.* at 9.

39. *See id.* Advertising of Over the Counter (OTC) drugs was, and continues to be, supervised by the Federal Trade Commission (FTC). *See id.*

40. *See id.*

41. *See* LEXCHIN, *supra* note 32, at 183.

42. *See id.*

Like the British Constitution, the Canadian Constitution is both written and unwritten.⁴³ The written portion comprises primarily the British North America Act of 1867 (BNA) and the Statute of Westminster of 1931.⁴⁴ The BNA divides the legislative powers between the federal and provincial governments according to subject matter.⁴⁵ The federal and provincial governments are each given exclusive jurisdiction over certain enumerated subjects.⁴⁶ In a "deliberate departure"⁴⁷ from the U.S. Constitution, which reserves to the states or to the people those powers not specifically enumerated,⁴⁸ Canada's BNA grants these residual powers to the federal government. The federal government of Canada is empowered to exercise this residual power to make laws necessary for "peace, order and good government."⁴⁹

Three categories of legislative subject matter found in the BNA have been analyzed with respect to identifying the constitutional authority for Canada's food and drug laws. Section 91 of the BNA enumerates subjects for which Parliament has exclusive authority, including regulation of trade and commerce, and the criminal law.⁵⁰ In addition, the preamble to section 91 provides Parliament with the residual power "to make laws for the peace, order and good government of Canada" in relation to all matters not exclusively assigned to the provinces under section 92.⁵¹

Although the Canadian Food and Drugs Act has not been subjected to frequent judicial scrutiny, its constitutionality was directly challenged in *Standard Sausage Co. Ltd. v. Lee*.⁵² This case involved a prosecution for food adulteration, in which the British Columbia Court of Appeal unanimously held the Food and Drugs Act to be constitutionally valid as a criminal law under

43. See CURRAN, *supra* note 5, at 30.

44. See ROBERT J. JACKSON & DOREEN JACKSON, *POLITICS IN CANADA* 181-83 (1994).

45. See *id.* at 182.

46. See The British North America Act, 1867, 30 Vict., ch. 3 §§ 91-92.

47. Canadian Embassy, *Canada's Constitution* 2 (May 1997).

48. U.S. CONST. amend. IX.

49. See The British North America Act, 1867, 30 Vict., ch. 3 § 91.

50. See *id.* at §§ 91(2), 91(27).

51. See *id.* at § 91; see also *id.* at § 92.

52. See *Standard Sausage Co. Ltd. v. Lee* [1934] 1 D.L.R. 706; see also CURRAN, *supra* note 5, at 38.

BNA section 91(27), and alternatively, valid as a law concerning the "peace, order and good government of Canada" under the preamble to BNA section 91.⁵³ The court broadly interpreted the term "criminal law" to include any law with penal consequences for its violation.⁵⁴ Nevertheless, Parliament cannot, under the guise of criminal law legislation, appropriate jurisdiction which the BNA allocated to the exclusive jurisdiction of the provinces.⁵⁵ This provides some limitation on Parliament's otherwise expansive powers to legislate under this broadened definition of criminal law.

The constitutionality of the Food and Drugs Act was reaffirmed in 1987 in the case of *C.E. Jamieson v. Canada*.⁵⁶ In this case, a pharmaceuticals manufacturer was held in violation of the "new drug" regulations.⁵⁷ The Canadian Federal Trial Court set out a two-step test for judicial review of legislation in the context of the constitutional division of powers: First, the courts must determine the "pith and substance (that is, the dominant subject matter) of the legislation"; second, the courts must assign the subject matter to one of the classes of subjects listed in the BNA under either section 91 or section 92.⁵⁸ The *Jamieson* court determined the "pith and substance" of the Food and Drugs Act to be regulation of public safety.⁵⁹ It considered the "trade and commerce" category as a possible basis for jurisdiction, but determined that since the regulations were not "aimed directly" at "international and interprovincial trade and commerce," these were not sustainable on that basis.⁶⁰

In following the reasoning of *Standard Sausage*, the court found that the Food and Drugs Act "resides squarely within Parliament's legislative jurisdiction over criminal law."⁶¹ Moreover, in line with the reasoning of *Standard Sausage*, the court also held that the Act was within Parliament's power "to make laws for the Peace, Order and Good Government of Canada," because these are "matters of national interest and

53. See *Standard Sausage* [1934] 1 D.L.R. at 721.

54. See *id.* at 424.

55. See CURRAN, *supra* note 5, at 39.

56. See *C.E. Jamieson & Co. Ltd. v. Canada* [1987] 12 F.T.R. 167.

57. See *Jamieson*, 12 F.T.R. 167. See *infra* Section IV.A regarding the substance of these regulations.

58. See *id.* at 16.

59. See *id.* at 17-26.

60. See *id.* at 31.

61. *Id.* at 38; see also *id.* at 32-47.

concern."⁶²

In the United States, the FDCA "rests upon the constitutional power resident in Congress to regulate interstate commerce."⁶³ The FDCA prohibits the movement in interstate commerce of adulterated and misbranded food, drugs, devices and cosmetics, and prosecutes offenders for shipping such goods across state lines.⁶⁴ At first glance, this appears to be a major difference between the United States' FDCA and Canada's Food and Drugs Act. In Canada, the Food and Drugs Act is a federal criminal law, which applies to all food and drugs sold in Canada, regardless of its origin.⁶⁵ In contrast, the FDCA relies on the commerce clause and therefore drug manufacturers operating entirely within one state would not be subject to these regulations. However, if *any* ingredient, container or label used was acquired outside the state, that would constitute interstate commerce and thus the FDA would have jurisdiction.⁶⁶ Therefore, in practice, federal law in the United States can regulate the vast majority of pharmaceuticals as well.

B. Agency Structure and Scope

Health and Welfare Canada is the department of the Canadian federal government responsible for "promoting and preserving the health, safety and well-being of all Canadians."⁶⁷ The Health Protection Branch (HPB) of Health and Welfare Canada oversees the "availability, use, manufacture and sale" of food, drugs, cosmetics and medical devices.⁶⁸ In the United States,

62. *Id.* at 54-75.

63. *United States v. Walsh*, 331 U.S. 432, 434 (1947).

64. *See* 21 U.S.C. § 331 (1994); *see also* Wassenaar, *supra* note 2, at 210.

65. *See* Ron O. Read, *Food Safety and Regulations—A Canadian Perspective*, 36 *FOOD DRUG COSMETIC L.J.* 120 (1981).

66. *See e.g.*, *Daniel v. Paul*, 395 U.S. 298, 305 (1969) (holding that a substantial portion of the food at a snack bar had moved in interstate commerce, based on principal ingredients in the food items having probably been obtained from out of state sources); *Katzenbach v. McClung*, 379 U.S. 294 (1964) (holding that where Ollie's Barbecue Restaurant had obtained four to six percent of its food from outside Alabama, that a substantial portion of the food served moved in interstate commerce); *Gregory v. Meyer*, 376 F.2d 509, 511 (5th Cir. 1967) (holding that where a restaurant used products which had moved in interstate commerce, this fact provided an adequate basis for coverage under the commerce clause).

67. EILEEN MCMAHON, *NEW DRUG APPROVAL IN CANADA* 80 (1994).

68. HEALTH PROTECTION BRANCH, *HEALTH PROTECTION & DRUG LAWS* 9 (1991) [hereinafter HPB].

the Food and Drug Administration (FDA) performs these functions.

The scope of responsibility of the HPB is broader than that of the FDA. The HPB is also responsible for the control of environmental hazards,⁶⁹ an area overseen by the Environmental Protection Agency (EPA) in the United States. The HPB also acts as a national center for the identification, control and prevention of human disease.⁷⁰ As such, the HPB has a role similar to the United States' Center for Disease Control (CDC). Finally, the HPB regulates activities related to controlled drugs and narcotics,⁷¹ a task handled by the U.S. Drug Enforcement Agency (DEA).

Within the HPB, the Therapeutic Products Directorate is responsible for overseeing the availability and use of drugs before they are marketed.⁷² The Therapeutic Products Directorate evaluates new drug submissions, determines potential health hazards, inspects drug manufacturing plants, authorizes emergency drug sales, and reviews drug advertising.⁷³ The HPB has the authority to bring criminal charges against drug manufacturers for non-compliance with Canadian laws and regulations.

In the United States the Department of Health and Human Services (DHHS) is responsible for pharmaceutical regulation.⁷⁴ The FDA, an independent agency within DHHS, was established by the FDCA to regulate the importation, manufacture, distribution and sale of drugs in the United States.⁷⁵ A Commissioner who is appointed by the President and approved by the Senate heads the agency.⁷⁶ Within the FDA, the Bureau of Drugs regulates human prescription and over-the-counter drug products.⁷⁷ The mission of the Bureau of Drugs is very similar to

69. *See id.*

70. *See id.*

71. *See id.* at 11.

72. *See id.* As of May 1, 1997, the Drugs Directorate merged with the Medical Devices Bureau and was renamed the Therapeutic Products Directorate. *See Therapeutic Products (Drugs) Programme* (visited Aug. 8, 1997) <<http://www.1pinelane.com/canada.htm>>.

73. HPB, *supra* note 68, at 11-12.

74. *See* NIELSON, *supra* note 16, at 3.

75. *See id.*

76. *See id.*

77. *See* SCI. & TECH. COMMITTEE, *supra* note 26, at 1; *See also* Quirk, *supra* note 10, at 201.

that of the Therapeutic Products Directorate; it evaluates new drug submissions for safety and efficacy, conducts research, monitors the quality of marketed drugs through product testing and surveillance, and monitors prescription drug advertisements and labeling.⁷⁸ Like the HPB, the FDA has authority to bring criminal charges against drug manufacturers for non-compliance.

C. Delegation of Authority

The FDA's enforcement authority flows from Congress' delegation of the power to regulate food and drugs in interstate commerce to the Secretary of DHHS.⁷⁹ The Secretary has, in turn, delegated this authority to the Commissioner of the FDA.⁸⁰ Statutory empowerment of the Secretary thus effectively empowers the FDA to enforce food and drug laws and regulations.

The non-delegation doctrine generally prohibits such delegation of congressional legislative authority. Such delegation is permissible, however, if the statute delegating these powers includes "standards."⁸¹ The concept of "standards" has been broadly interpreted by the courts, as requiring only "public interest" or "reasonableness" as the basis for agency actions.⁸² The FDCA satisfies this requirement by establishing standards of reasonableness for the FDA's actions, in light of its primary objective of protecting consumers.⁸³ In practice, Congress does not take the time to provide detailed instructions to agencies and relies instead on the agency's own expertise.⁸⁴

The Canadian Parliament has the constitutional authority to regulate pharmaceuticals for public health and safety, and to prevent deceptive and dishonest practices. As enacted by Parliament, the Food and Drugs Act delegates to the Governor-in-Council, an advisory body similar to the U.S. President's Cabinet, far-reaching powers to regulate and control the manufacture and sale of drugs in Canada.⁸⁵ While the Food and Drugs Act provides

78. SCI. & TECH. COMMITTEE, *supra* note 26, at 3.

79. See 21 U.S.C. §§ 371-72 (1994).

80. See 21 C.F.R. § 5.10; see also Quirk, *supra* note 10, at 201.

81. See CHARLES H. KOCH, ADMINISTRATIVE LAW & PRACTICE 39 (1985).

82. See *id.* at 39. According to Koch, in the United States, the non-delegation doctrine "has had no practical force." *Id.* at 40.

83. See *Federal Security Adm'r v. Quaker Oats Co.*, 318 U.S. 218, 232 (1943); *United States v. Lord-Mott Co.*, 57 F.Supp. 128, 133 (D. Md. 1944).

84. See *id.* at 41.

85. See CURRAN, *supra* note 5, at 157. An act of the Governor in Council is an act of

the framework, the details are provided in regulations published in the Canada Gazette.⁸⁶ Unlike the broad standards provided by legislation in the United States, the Canadian Food and Drugs Act clearly specifies what matters can be handled through delegated regulations.⁸⁷

The delegation of legislative authority in Canada is sometimes seen as open to abuse.⁸⁸ However, under Canada's system of "responsible government," safeguards exist in the delegation process. The regulations originate in an operating unit of the HPB.⁸⁹ The Canadian Department of Justice first considers the regulations.⁹⁰ Following discussion and revision in the Justice Department, the Minister of Health and Welfare, reviews the proposed regulations and then presents them to the Governor-in-Council.⁹¹ Rarely are the regulations discussed in detail at this stage, but are read into the minutes of the Privy Council and signed as an Order-in-Council.⁹² The Minister is ultimately responsible to Parliament for the regulations originating in his or her department.⁹³ As a member of Parliament, the Minister is also answerable to his or her constituency. In addition, the validity of any regulation is open to challenge in court.⁹⁴

the Governor General (the representative of the Queen) on the advice of the Cabinet. See *id.* at 159.

86. See HPB, *supra* note 68, at 14.

87. See CURRAN, *supra* note 5, at 159.

88. See *id.* Since the publication of the Gagnon Report (*see infra* note 167) in 1992, the pharmaceutical industry has been asking that the Therapeutic Products Directorate be made an independent operating agency, "at arm's length from the federal government," reporting directly to the Minister rather than the HPB. See MCMAHON, *supra* note 67, at 81; Larry Johnsrude, *Companies Urge Ottawa to Speed Up Approval of New Drugs*, MONTREAL GAZETTE, Jan. 18, 1995, at B4. The American concept of an independent administrative agency, however, is not totally applicable in the Canadian context. See G. BRUCE DOERN, *THE REGULATORY PROCESS IN CANADA* 11 (1978). All regulatory agencies in Canada are more dependent on the administrative and political support of the ministers and departments than is the situation in the United States. See *id.*

89. See Wassenaar, *supra* note 2, at 211.

90. See *id.*; HPB, *supra* note 68, at 14.

91. See *id.*

92. See Wassenaar, *supra* note 2, at 211.

93. See CURRAN, *supra* note 5, at 160.

94. See *id.* However, court challenges to the *Food & Drugs Act* regulations have been rare. See Michael Gagnon, *The Case of the Elusive Regulations*, 1 LEGAL MED. Q. 247 (1977).

D. The Regulatory Process

The U.S. rulemaking process requires a hearing to provide industry and consumer representatives with a public forum. However, the definition of "hearing" in American administrative law varies. This right of the public to participate in the rulemaking process is guaranteed for all legislative rulemaking; however, the extent of participation provided for need only be "reasonable under the circumstances."⁹⁵ The federal Administrative Procedures Act (APA) requires that the minimum amount of public participation in rulemaking consist of notice and an opportunity to submit written comments.⁹⁶ Most rules are made through informal rulemaking procedures.⁹⁷ Notice usually involves publication of the proposed rule in the Federal Register.⁹⁸ Comments are usually written, but an agency may also elect to hear testimony at a public legislative-type hearing.⁹⁹

Under the FDCA, Congress allowed for informal notice-and-comment rulemaking generally,¹⁰⁰ but also provided for formal rulemaking upon request from an adversely-affected party.¹⁰¹ The first part of the process follows notice-and-comment procedures: The Secretary of DHHS publishes the proposed regulation in the Federal Register to allow "all interested persons an opportunity to present their views . . . orally or in writing."¹⁰² Adversely-affected parties have thirty days from the publication of the proposed regulation to request a public hearing.¹⁰³ This public hearing will

95. *Natural Resources Defense Council, Inc. v. EPA*, 859 F.2d 156, 175 (D.C. Cir 1988).

96. *See* Administrative Procedures Act, 5 U.S.C. § 553 (1994). The term "informal rulemaking" is used to refer to this notice-and-comment process, although the term does not appear in the Administrative Procedures Act (APA). *See generally* KOCH, *supra* note 81, at 215.

97. *See* KOCH, *supra* note 81, at 67.

98. *See id.*

99. *See id.* "An agency's choice of rulemaking procedure is virtually unreviewable." *Id.* at 215.

100. *See* 21 U.S.C. § 371(a) (1994).

101. *See* 21 U.S.C. § 371(e).

102. *See* 21 U.S.C. § 371(e)(1). Agency rulemaking is not a democratic process; the agency is not bound to follow the dictates of the comments received. *See* *Natural Resources Defense Council, Inc. v. EPA*, 822 F.2d 104, 122 n.17 (D.C. Cir 1987).

103. *See* 21 U.S.C. § 371(e)(2). However, as interpreted by the courts, this statute does not require a public hearing in *every* case in which an adversely-affected party objects to the proposed regulation. *See* *Pineapple Growers Ass'n v. FDA*, 673 F.2d 1083 (9th Cir. 1982).

be a "full-fledged, trial-type hearing."¹⁰⁴ Following the hearing, final rules are published in the Federal Register, and later codified in the Code of Federal Regulations.

U.S. agencies also issue handbooks and guidelines containing informative, but not binding rules.¹⁰⁵ Although FDA guidelines do not have the force of law, they do represent a statement of the FDA's formal position on the subject, and obligate the FDA to act in a manner consistent with that policy.¹⁰⁶ These internal pronouncements are not subject to the notice-and-comment rulemaking requirement.¹⁰⁷

In Canada, major policy initiatives and proposals for regulatory amendments are communicated to the drug industry, health professionals and the public through Information Letters distributed by the HPB or through publication in the Canada Gazette.¹⁰⁸ Final regulations are also published in the Canada Gazette.¹⁰⁹ Unlike the more strict administrative procedures in the United States, regulations made under Canada's Food and Drugs Act do not require any form of public hearing or formal inquiry.¹¹⁰ Elected officials, the HPB, trade associations, or consumers may initiate changes in regulations.¹¹¹ When a regulation is proposed, the government is under no obligation to provide a "comment period" for those affected by the regulation.¹¹² The industry or public may elect to submit comments, but as with the FDA, the HPB is not required to follow the dictates of those comments. Nevertheless, as a general policy, Health and Welfare Canada discusses proposed regulations with the affected trade or industry.¹¹³

104. See *Independent Cosmetic Mfrs. & Distrib., Inc. v. HEW*, 574 F.2d 553, 572 (D.C. Cir. 1978) (dissenting opinion) (stating that the legislative history "clearly indicates that a full-fledged, trial type hearing was intended, and the FDA regulations carry out this intention.").

105. See 21 C.F.R. § 10.90. See generally KOCH, *supra* note 81, at 68.

106. See *Southeastern Minerals, Inc. v. Harris*, 622 F.2d 758, 768 (5th Cir. 1980).

107. See Administrative Procedures Act, 5 U.S.C. § 553(b)(A). See generally *Professionals & Patients for Customized Care v. Shalala*, 56 F.3d 592 (5th Cir. 1995).

108. See HPB, *supra* note 68, at 14.

109. See *id.*

110. See CURRAN, *supra* note 5, at 160; A. B. Morrison, *The Canadian Approach to Food and Drug Regulations*, 30 FOOD DRUG & COSM. L.J. 632, 639 (1975).

111. See Morrison, *supra* note 110, at 639.

112. See *id.*

113. See CURRAN, *supra* note 5, at 160.

Like the FDA, the HPB also publishes informative handbooks, or Guidelines.¹¹⁴ This literature provides the industry and public with interpretations, additional information and examples on topics such as the conduct of clinical studies, Good Manufacturing Practices (GMP), and preparation of human and investigational new drug submissions.¹¹⁵ Like their U.S. counterparts, these Guidelines do not have the binding force of laws or regulations.¹¹⁶

IV. OVERVIEW OF KEY AREAS OF REGULATION

A. New Drug Approval

The FDA's "most formidable" power lies in its regulatory authority to approve new drugs.¹¹⁷ No new drug may enter the U.S. market without FDA approval as to both safety and effectiveness.¹¹⁸ Similarly, in Canada, no new drug may be marketed without the approval of the HPB.¹¹⁹

1. Definition of "New Drug"

The definition of "new drug" is substantially the same in the United States and Canada. Regulations promulgated under the Canadian Food and Drugs Act define a "new drug" as any drug that has not been sold in Canada "for sufficient time, and in sufficient quantity, to establish its safety and effectiveness under its recommended conditions for use."¹²⁰ Similarly, the FDCA defines a "new drug" as any "drug not generally recognized among experts . . . as safe and effective under the conditions prescribed, recommended or suggested in the labeling thereof," or which has been recognized as safe and effective under such conditions based on research but "has not, otherwise than in such investigations, been used to a material extent or for a material time under such

114. See Wassenaar, *supra* note 2, at 213-14.

115. See HPB, *supra* note 68, at 15, 69-70 (listing Guidelines and other publications of the Therapeutic Products Directorate).

116. See *id.* at 15.

117. See NIELSON, *supra* note 16, at 27.

118. See *id.* at 28. FDA approval is required before the new drugs can be imported or transported in interstate commerce. See *id.*

119. See HPB, *supra* note 68, at 5.

120. *Id.* at 25.

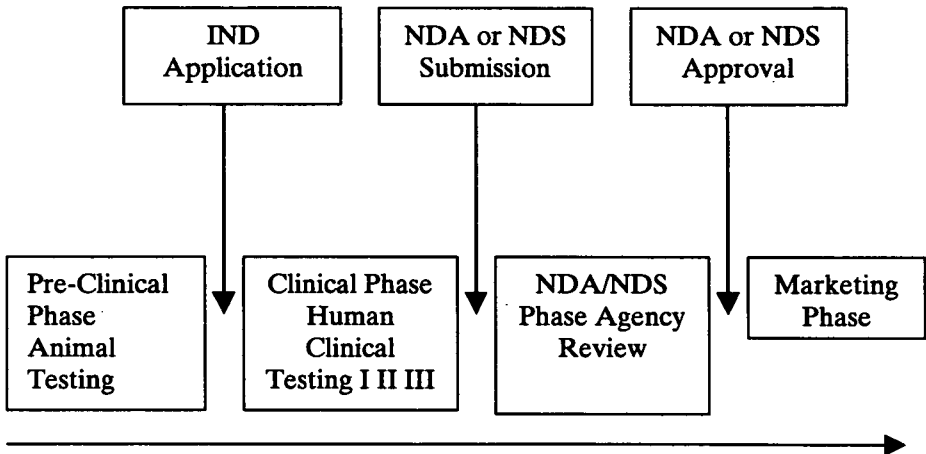
conditions."¹²¹

2. New Drug Approval Process

The Canadian new drug approval process is substantially similar to the U.S. process. In fact, the Canadian process was modeled after that of the United States.¹²² The new drug approval process in both countries consists of four phases: Pre-Clinical, Clinical, NDA Review and Marketing.

This is illustrated in the diagram below:

U.S. and Canadian Process for New Drug Approval



Timeline

Pre-Clinical Phase

The United States new drug approval process begins when the drug manufacturer completes initial laboratory research, including studies on animals, and determines that the new drug looks promising for the treatment of a specific disease.¹²³ If these pre-clinical studies indicate it is reasonably safe to initiate human clinical trials, the drug's "sponsor" (usually the manufacturer) will

121. 21 U.S.C. § 321 (1994).

122. See Robert E. Curran, *Canadian Regulation of Food, Drugs, Cosmetics & Devices-An Overview*, 30 FOOD DRUG & COSM. L.J. 644, 648 (1975).

123. See NIELSON, *supra* note 16, at 28.

then file a *Notice of Claimed Investigational Exemption for a New Drug* (IND) with the FDA.¹²⁴ This IND application provides notice that clinical (human) trials will be conducted, contains information about the pre-clinical results, outlines the proposed clinical studies, identifies experienced clinical investigators who will conduct the trials and provides other information about the manufacturing and testing processes. Additionally, the sponsor must provide the results of any foreign clinical experience.¹²⁵

Canada uses essentially the same process. To perform clinical trials, the drug sponsor must file an *Investigational New Drug Submission* (INDS) with the Therapeutic Products Directorate containing information very similar to an IND supplied to the FDA.¹²⁶ However, the HPB does not require the submission of foreign clinical data.¹²⁷ This omission has generated criticism of the HPB's process, that the drug sponsor may be aware of adverse reactions or poor results in clinical trials outside of Canada, yet is not obligated to report this information.¹²⁸

In the United States, clinical studies may start thirty days after receipt of the IND notice unless the FDA issues an objection.¹²⁹ In Canada, the Therapeutic Products Directorate sends the drug sponsor a letter acknowledging receipt of the IND.¹³⁰ If there is no negative response from the Therapeutic Products Directorate within sixty days, clinical trials may commence.¹³¹

Clinical Phase

During the Clinical Trials phase, a Phase I Study is first conducted on a relatively small number of healthy human volunteers, to identify the safe dosage range and obtain other basic

124. See 21 C.F.R. § 312. See generally NIELSON, *supra* note 16, at 28.

125. See Jeffrey N. Gibbs, *Food & Drug Administration Regulation & Products Liability: Strong Sword, Weak Shield*, 22 TORT & INS. L.J. 194, n.57 (1987).

126. See HPB, *supra* note 68, at 26.

127. See LEXCHIN, *supra* note 32, at 188.

128. See Nicholas Regush, *How a Suspect Arthritis Drug Evaded Government Checks*, MONTREAL GAZETTE, Oct. 25, 1982, at A1 (telling the story of the drug Oralflex, in which the drug manufacturer failed to inform the Therapeutic Products Directorate of eight deaths in Britain connected with the drug, or about suspected adverse reactions documented in a U.S. study).

129. See NIELSON, *supra* note 16, at 29.

130. See MCMAHON, *supra* note 67, at 29-30.

131. See *id.*

information.¹³² If these results indicate the drug can safely be tested on humans, a Phase II Study follows to test the drug's effectiveness on a limited number of patients with specific medical conditions.¹³³ Finally, provided there are no major safety concerns raised by the Phase II Study, the drug is tested for safety and efficacy in wider clinical use.¹³⁴ The Phase III Study will also attempt to identify the optimal dosage level.¹³⁵

NDA Phase

In the United States, once the research has been completed, the sponsor may submit a *New Drug Application* (NDA) to the FDA.¹³⁶ The NDA has become the principal regulatory device for controlling pharmaceutical companies in the United States.¹³⁷ An NDA is an extensive document, including extremely detailed safety and effectiveness data and statistical analyses.¹³⁸ The FDA reviewers thoroughly "examine the clinical, chemical, statistical and pharmacological data submitted by the sponsor."¹³⁹ Often, the FDA reviewers will require the drug sponsors to submit additional information.¹⁴⁰ The FDA can refuse to accept the NDA application if, within sixty days of receipt, the FDA determines it to be substantially deficient.¹⁴¹ The FDA will approve a new drug only if the drug's sponsor provides substantial evidence of safety and effectiveness.¹⁴²

Similarly, in Canada, once the research is completed, the drug's sponsor may submit a *New Drug Submission* (NDS) to the Therapeutic Products Directorate.¹⁴³ The Canadian procedures

132. See 21 C.F.R. § 312.1(a)(2). See also Gibbs, *supra* note 125, at 204; NIELSON, *supra* note 16, at 29.

133. See 21 C.F.R. § 312.1(a)(2). See also Gibbs, *supra* note 125, at 204; NIELSON, *supra* note 16, at 29.

134. See 21 C.F.R. § 312.1(a)(2). See also Gibbs, *supra* note 125, at 204; NIELSON, *supra* note 16, at 29.

135. See 21 C.F.R. § 312.1(a)(2). See also Gibbs, *supra* note 125, at 204; NIELSON, *supra* note 16, at 29.

136. See NIELSON, *supra* note 16, at 30.

137. See *id.*

138. See Gibbs, *supra* note 125, at 205; see generally 21 C.F.R. § 56.

139. See Gibbs, *supra* note 125, at 205.

140. See 21 U.S.C. § 355 (1994). See also NIELSON, *supra* note 16, at 30-31; Gibbs, *supra* note 125, at 206.

141. See Gibbs, *supra* note 125, at n. 68.

142. See 21 U.S.C. § 355(d) (1994). See generally Gibbs, *supra* note 125, at 206.

143. See HPB, *supra* note 68, at 26.

are so similar to the United States' process that the Therapeutic Products Directorate will even accept a copy of a FDA New Drug Application, including clinical evidence, in lieu of a Canadian NDS application.¹⁴⁴ Canada and the United States do not reciprocate with regard to application *approval*, however. Each country conducts its own investigation after the application is received.¹⁴⁵

Marketing Phase

Once the FDA approves the NDA, the drug may be marketed in the United States. The product, however, may still be classified as a new drug for many years, and the manufacturer is under a continuing obligation to report any adverse reactions to the FDA.¹⁴⁶ Similarly, in Canada, once the Therapeutic Products Directorate is satisfied with the NDS, it will issue a Notice of Compliance that allows the drug to be marketed.¹⁴⁷ The drug will remain classified as a new drug at the discretion of the HPB, until it has been in use "for sufficient time and in sufficient quantity to assure the HPB that it is safe and effective," which takes about five years.¹⁴⁸ During this period, the drug manufacturer is required to report any adverse reactions occurring in Canada.¹⁴⁹

The HPB also issues a Drug Identification Number (DIN).¹⁵⁰ The DIN is required for every drug on the Canadian market and provides information to HPB regarding the drug's manufacturer, use, effect and ingredients.¹⁵¹ This requirement applies not just to *new* drugs, but to *all* drugs; therefore, manufacturers of drugs that had been marketed in Canada for years prior to the DIN requirement had to apply for DIN numbers for those drugs and pay an associated fee.¹⁵² Undoubtedly because of the expense to manufacturers, the DIN regulations have been challenged as "*ultra vires* the Canadian Parliament."¹⁵³ The Federal Trial Court of

144. See Curran, *supra* note 122, at 648.

145. See *id.*

146. See 21 C.F.R. § 310.300; 21 C.F.R. § 310.303; see also NIELSON, *supra* note 16, at 31.

147. See HPB, *supra* note 68, at 27.

148. LEXCHIN, *supra* note 32, at 190.

149. See *id.*

150. See C.R.C. C.0.014(1). See generally HPB, *supra* note 68, at 27.

151. See C.R.C. C.01.014.1(1); C.R.C. C.01.014.1(3). See also MCMAHON, *supra* note 67, at 63-66; Curran, *supra* note 122, at 650.

152. See C.R.C. C.01.014(1); MCMAHON, *supra* note 67, at 63.

153. C.E. Jamieson & Co. v. Canada [1987] 12 F.T.R 167.

Canada, however, has upheld the regulation.¹⁵⁴ The United States has no comparable numbering system.¹⁵⁵

3. Approval Times

The development of a new drug is a long and expensive process.¹⁵⁶ The FDA is famous for both the stringency and the slowness of its new drug approval process.¹⁵⁷ However, the NDA approval time has improved dramatically in the past ten years. NDAs submitted in 1987 took an average of thirty-three months to be reviewed.¹⁵⁸ The average time for NDAs submitted in 1992 had decreased to nineteen months,¹⁵⁹ representing a remarkable forty-two percent reduction. The average review time in 1997 had decreased to fifteen months.¹⁶⁰ The fastest reviews are for NDAs to which the FDA assigns a priority status (ten months less than the average review time) and for NDAs submitted by experienced sponsors (four months less than the average review time).¹⁶¹ Much of the improvement since 1992 can be credited to the Prescription Drug User Fee Act (PDUFA).¹⁶² This gave the FDA

154. *See id.*

155. *See* Curran, *supra* note 122, at 650.

156. In the United States, it takes between \$300 million and \$500 million for a single drug to complete the FDA approval process. *See* VanHuysen, *supra* note 15, at 478-79. From pre-IND application studies to final marketing approval, the entire research and development period lasts an average of between eight and one half and fourteen and one half years. *See id.* at 485. The President and CEO of Glaxo Wellcome, Inc., the world's largest pharmaceutical company, has stated that the cost of developing a new drug in Canada is C\$450 million and takes an average of 10 years. *See* Paul Lucas, *Canada's Global Success Demands Better Field for Pharmaceuticals*, CANADIAN SPEECHES: ISSUES OF THE DAY, Jan./Feb., 1997, at 47.

157. *See Testing Testing*, THE ECONOMIST, Feb. 1, 1997, at 81 [hereinafter ECONOMIST]; *see also* Quirk, *supra* note 10, at 206. Under 21 U.S.C. § 355(c) (1994), the FDA has only 180 days to act on a completed NDA; however, this deadline is easily evaded "by asking the companies for 'voluntary' extensions, or declaring the NDA incomplete pending further information." Quirk, *supra* note 10, at 208.

158. *See* U.S. GENERAL ACCOUNTING OFFICE, FDA DRUG APPROVAL: REVIEW TIME HAS DECREASED IN RECENT YEARS 4 (GAO/PEMD-96-1, Oct. 1995) [hereinafter GAO/PEMD-96-1]. Nearly half of all NDA's submitted are not approved for marketing, either because the FDA determined they were not safe and effective, or because the sponsor did not pursue the application. *See id.* at 10.

159. *See id.*

160. *See The FDA Modernization Act of 1997* (visited May 2, 1999) <<http://www.fda.gov/opacom/backgrounders/modact.htm>>.

161. *See* GAO/PEMD-96-1, *supra* note 158 at 4-5. Only 17% of all NDAs are given priority status, meaning that they represent an important therapeutic advance. *See id.* at 11.

162. *See infra* Section V.B.1.

the ability to collect user fees from the drug industry to help finance the computerization of the review process.¹⁶³ Computerization alone accounted for an eleven month reduction in NDA approval time.¹⁶⁴

In the 1970s, the Canadian drug review system was faster than its U.S. counterpart.¹⁶⁵ But in 1993, while the United States was improving its review process time, Canada's review time slipped to an average of thirty-four months, making it one of the slowest drug regulatory systems in the world.¹⁶⁶ According to one government study, the Therapeutic Products Directorate was so bogged down in bureaucracy, it lacked the flexibility to approve new drugs quickly.¹⁶⁷ Canada, however, instituted a fast-track review for drugs identified as having an important therapeutic benefit, such as treatment for AIDS.¹⁶⁸ Additionally, in the last few years, the HPB has improved its new drug approval time to more closely mirror that of the United States.¹⁶⁹

Speeding up the approval process means making needed drugs available to patients sooner. This objective, although laudable, must be tempered with concerns for safety; faster is not better if it compromises patient safety. While the timeliness of the new drug approval process is an issue in both the United States

163. *ECONOMIST*, *supra* note 157, at 81. Until a pilot study in 1994, NDAs had to be sent to the FDA as large bundles of papers. *See id.*

164. *See id.*

165. *See* COMPTROLLER GENERAL, *FDA APPROVAL—A LENGTHY PROCESS THAT DELAYS THE AVAILABILITY OF IMPORTANT NEW DRUGS*, GAO-HRD-80-64 (1980) at 7 [hereinafter GAO-HRD-80-64]. For drugs approved between July 1975 and February 1978, which were classified as "important new drugs," the approval time was 16 months in Canada, compared to 23 months in the United States. *See id.*

166. *See* Ian Austen, *Faster Drug Approvals Might Pose Safety Risks: Study*, MONTREAL GAZETTE, January 19, 1995, at E3. The British review board, for example, takes a maximum of 80 days for review of new products, and turns around the majority of applications within 60 days. *See id.*

167. *See* MCMAHON, *supra* note 67, at 85-87 (Appendix II: Executive Summary of "Review of the Canadian Drug Approval System," a government-sponsored report by Dr. Denis Gagnon, Université Laval). *See also* Larry Johnsrude, *supra* note 88, at B4 (quoting industry representatives' concerns about the slowness of the drug approval process).

168. *See* Austen, *supra* note 166, at E3. More than 90% of Canadian applications are for drugs that are either variations of current medicines or offer little significant medical benefit. *See id.*

169. Paul Lucas, of the multi-national pharmaceutical company Glaxo Wellcome, stated in a 1997 speech that "[i]n Canada, while considerable improvement has been made, it still takes 18 months or longer for a new drug to be approved by the Health Protection Branch." Lucas, *supra* note 156, at 47.

and Canada, Canada seems to take a more conservative approach and is more willing to forego speed to ensure safety.¹⁷⁰ This is corroborated by a 1995 study which found that "there is some evidence that approval procedures may be more stringent in Canada than in the United Kingdom or the United States."¹⁷¹

Even while maintaining a conservative new drug approval process, the Canadian fast-track review for important drug breakthroughs will effectively give priority to drugs whose quick approval will make the most difference to patients.

B. Inspections and Seizures

In Canada, federal inspectors are given very broad discretionary powers to enter and inspect any premises where regulated activities occur. Under the Canadian Food and Drugs Act, inspectors from the HPB Field Operations Directorate have the authority to enter and inspect drug manufacturing and storage locations to monitor compliance with the Act and HPB regulations.¹⁷² These inspections may be performed "at any reasonable time," and inspectors may enter any place where the inspector "believes on reasonable grounds" that "any article to which [the Food and Drugs Act applies] is manufactured, prepared, preserved, packaged, or stored."¹⁷³ Furthermore, the inspector may examine any articles, take samples, examine and make copies of any books or other records.¹⁷⁴ The inspector may also, on reasonable grounds, "seize and detain for such time as may be necessary any article [connected with] contravention of the Food and Drugs Act."¹⁷⁵ The HPB inspector need not obtain a search warrant before entering the premises.¹⁷⁶ In *Jamieson*, a

170. See, e.g., Austen, *supra* note 166, at E3; see also Nicholas Regush, *Prescription-Drug Safety Rules are Slipping*, MONTREAL GAZETTE, June 6, 1992, at B1.

171. Austen, *supra* note 166, at E3. This study was conducted by Dr. Joel Lexchin, and published in the International Journal of Health Services. See *id.* Furthermore, in a review of 15 drug applications that Canada had rejected as not safe and effective, the U.S. approved nine, but later rescinded or limited approval of four of those. See *id.* Britain approved ten of these drugs, later changing its mind about seven of them. See *id.*

172. See HPB, *supra* note 68, at 38.

173. Food and Drugs Act, R.S.C., ch. F-27, § 23 (1997) (Can.).

174. *Id.*

175. See *id.*

176. See W. Wassenaar, *Canada: Evolution of Drug Regulation Within the Health Protection Branch*, 35 FOOD DRUG & COSM. L.J. 451, 453 (1980). There is an exception in the regulations for "dwelling houses," the entry of which *does* require a search warrant. See Food and Drugs Act, R.S.C., ch. F-27, § 23(1.1) (1997) (Can.).

drug manufacturer challenged the HPB's authority for warrantless searches under the *Canadian Charter of Rights and Freedoms*.¹⁷⁷ The Charter guarantees that "[e]veryone has the right to be secure against unreasonable search and seizure."¹⁷⁸ The *Jamieson* court held that the "pivotal word in section 8 of the Charter is 'unreasonable'. Reasonable searches and seizures [such as those authorized under the Food and Drugs Act] . . . are constitutionally valid if otherwise lawful."¹⁷⁹ Warrantless search and seizure by a public health and safety inspector of business activities subject to government regulation are likely to be considered reasonable because those businesses have "a lowered expectation of privacy."¹⁸⁰

In the United States, the inspection powers of government agencies are generally more limited than in Canada. Section 8 of Canada's *Charter of Rights and Freedoms* is very similar to the U.S. Constitution's Fourth Amendment guarantee of "[t]he right of the people to be secure . . . against unreasonable searches and seizures, . . . and no Warrants shall issue, but upon probable cause"¹⁸¹ Nevertheless, until the late 1960s, administrative inspections were considered exempt from this requirement.¹⁸² The U.S. Supreme Court later rejected this concept.¹⁸³ Although government inspections for public health and safety purposes are less intrusive than criminal police searches, the individual's privacy interests were deemed protected by the warrant requirement.¹⁸⁴ There are exceptions, however; for example, government inspectors may enter a place of business that is open to the public and act on their observations.¹⁸⁵ Another exception applies to closely regulated businesses. Using language very similar to that of the Canadian court in *Jamieson*, and in the same year, the U.S. Supreme Court held that the business owner in a closely regulated

177. See *C.E. Jamieson & Co. Ltd. v. Canada* [1987] 12 F.T.R. 167.

178. *Canadian Charter of Rights & Freedoms*, Constitution Act, pt. I § 8 (1982).

179. *Jamieson*, 12 F.T.R. 167, at 172.

180. *Id.* at 175. Nevertheless, in *Jamieson*, the court found the particular product seizure in question to be unreasonable. See *id.* at 171.

181. U.S. Const. amend. IV.

182. See CHARLES H. KOCH JR., 1 ADMINISTRATIVE LAW & PRACTICE § 5.47, at 394 (1985).

183. See *Camera v. Municipal Court*, 387 U.S. 523 (1967) (regarding dwellings); See *v. Seattle*, 387 U.S. 541 (1967) (regarding business premises).

184. See *Camera*, 387 U.S. 523; 387 U.S. 541.

185. See *McWalters v. United States*, 6 F.2d 224 (9th Cir. 1925).

industry "has a reduced expectation of privacy."¹⁸⁶ Legislation may legitimately provide for warrantless inspection of closely regulated businesses by the relevant government agency.¹⁸⁷ Where close scrutiny and frequent inspection are essential to enforcement, these objectives would be frustrated by a warrant requirement. Moreover, when one chooses to engage in a pervasively regulated business, it is with the knowledge that such inspections may occur.¹⁸⁸ This *Colonnade-Biswell* exception for closely-regulated businesses is a narrow one, and in most cases a warrant is still required for administrative inspections. The Ninth Circuit Court of Appeals recently held, however, that FDCA drug regulations relate to a "closely regulated business" within the *Colonnade-Biswell* exception, and a warrant for inspection of a drug manufacturer is not required.¹⁸⁹

C. Labeling

When the FDA reviews an NDA, in addition to the clinical evidence, it also considers what information should be required on the product's labeling. The principal requirement is that the product must be "indicated for" only those uses for which there is substantial evidence of safety and effectiveness.¹⁹⁰ The labeling must also provide the physician with all medically relevant information regarding appropriate use of the product, including dosage, directions for administration, and all known precautions, warnings, and contraindications.¹⁹¹ FDA regulations require a rather rigid format which all manufacturers must follow.¹⁹² The final product labeling must accompany the product in the form of a package insert, which is usually provided to the physician but not the patient.¹⁹³

Canadian regulations also require approved labeling prior to marketing, but the requirements are not as detailed. The label

186. *New York v. Burger*, 482 U.S. 691, 700 (1987).

187. *See Colonnade Catering Corp. v. United States*, 397 U.S. 72 (1970); *United States v. Biswell*, 406 U.S. 311 (1972).

188. *See Biswell*, 406 U.S. 311.

189. *See U.S. v. Argent Chem. Lab., Inc.*, 93 F.3d 572 (1996) (regarding seizure of veterinary drugs regulated under the FDCA).

190. *See Gibbs*, *supra* note 125, at 211.

191. *See* 21 C.F.R. § 201.56(d)(1). *See generally Gibbs*, *supra* note 125, at 206, 211-12.

192. *See Gibbs*, *supra* note 125, at 212 (citing as examples, 21 C.F.R. §§ 201.13(a); 201.316(b); and 801.420(c)(3), which provide detailed requirements for particular drugs).

193. *See id.*

must contain only the name of the drug, adequate directions for use, a quantitative list of the active ingredients, expiration date, potency of the drug, and method of administration if other than oral.¹⁹⁴ The main panel of the label must also clearly show the DIN, which is not required in the United States.¹⁹⁵ Another difference between the United States and Canada is in the language requirements. In Canada, all drug labels must be in two languages, one of which must be either French or English.¹⁹⁶ In addition, the *Charter of the French Language* requires that all drugs sold in Quebec be labeled in French and that no other language be more prominent.¹⁹⁷

D. Good Manufacturing Practices (GMP)

The FDA has adopted extensive and detailed regulations regarding Good Manufacturing Practices (GMP) for drugs.¹⁹⁸ These regulations establish minimum criteria for buildings, personnel, equipment, control of components, processing controls, quality controls and record keeping.¹⁹⁹ Any drug not manufactured in conformance with GMP standards is presumed adulterated.²⁰⁰ This presumption arises out of necessity because the FDA cannot inspect every article manufactured in a substandard facility to assure it is safe. "The risk to public health from impure articles is greater than the financial hardship and the inconvenience suffered by a manufacturer who desires to produce a product under such conditions [which do not conform to GMP]."²⁰¹ The counter-argument is that the GMP standards are unduly harsh for small manufacturers who cannot afford the expense of compliance.²⁰² Nevertheless, this argument cannot overcome the strong policy favoring public safety.

194. See MCMAHON, *supra* note 67, at 75-77.

195. See *supra* notes 150-55, and accompanying text.

196. C.R.C. A.01.015. If the drug is for sale without a prescription, adequate directions for use must be shown in both French and English. C.R.C. A.01.015. See MCMAHON, *supra* note 67, at 75.

197. See R.S.Q. 1977, ch. C-11; S.Q. 1983, ch. 56.

198. See 21 C.F.R. pt. 211. The GMP requirements originated in the 1962 Kefauver-Harris Amendments.

199. See *id.*

200. 21 C.F.R. §§ 211.1-211.208.

201. See NIELSON, *supra* note 16, at 15.

202. See *id.*

Canada has also adopted its own Good Manufacturing Practices to be followed in the manufacturing of drugs. According to the Food and Drugs Act, "[n]o person shall manufacture, prepare, preserve, package or store for sale any drug under unsanitary conditions."²⁰³ The regulations have elaborated on this principle by providing that "no manufacturer or importer shall sell a drug unless it has been produced in accordance with the [GMP] requirements."²⁰⁴ The regulations then proceed to detail those GMP requirements, which cover standards for the premises where the drug is produced, equipment involved, personnel, sanitation, manufacturing controls or procedures, quality control and record keeping.²⁰⁵ The Therapeutic Products Directorate has also published the GMP requirements in the form of a Guideline, which sets out the applicable sections from the regulations and their meaning, interpretation and rationale.²⁰⁶ While Canada's GMP requirements are very similar to those of the United States, Canada has not adopted the policy of presuming a product is adulterated if these standards are not met.

V. SELECTED ISSUES IN U.S. AND CANADIAN PHARMACEUTICAL REGULATION

A. *Effect of NAFTA on Canadian Pharmaceutical Regulation*

The United States, Canada and Mexico implemented the North American Free Trade Agreement (NAFTA) on January 1, 1994.²⁰⁷ Prior to NAFTA, Canada and the United States had a significant economic and trade relationship, including a significant pharmaceutical trade relationship.²⁰⁸ The United States, however,

203. See Food & Drugs Act, R.S.C., ch. F-27, § 11 (1997) (Can.).

204. MCMAHON, *supra* note 67, at 72.

205. See *id.* at 72-73.

206. See *id.* at 72. See *supra* notes 114-16 and accompanying text regarding HPB Guidelines.

207. See North American Free Trade Agreement (NAFTA), Dec. 17, 1992, 32 I.L.M. 289 (1993).

208. In 1992, U.S. pharmaceutical exports to Canada reached \$845 million, making Canada one of the U.S. pharmaceutical industry's largest markets. See Lars Noah, *NAFTA's Impact on the Trade in Pharmaceuticals*, 33 HOUS. L. REV. 1293, 1295 (1997). The United States and Canada have the largest trade relationship in the world. See JACKSON & JACKSON, *supra* note 44, at 610. Significant trade agreements had preceded NAFTA, notably the Free Trade Agreement (FTA), Dec. 22, 1987, Can.-U.S., 27 I.L.M. (1988).

desired more intellectual property protection for its exports.²⁰⁹ This objective was incorporated into NAFTA, which mandated important changes in the area of patent protection for the pharmaceutical industry.²¹⁰ In turn, the changes Canada made to its patent legislation—in anticipation of and as a result of NAFTA—resulted in the institution of pharmaceutical price controls. In contrast, NAFTA is “unlikely to have any significant impact on the U.S. regulation of pharmaceuticals.”²¹¹

1. Patent Law

Several Canadian government reports in the 1960s identified Canadian drug prices as among the highest in the world and identified patent protection as a major cause.²¹² In response, the Canadian government passed an amendment to the Patent Act requiring compulsory licensing of drug patents.²¹³ Compulsory licensing controls the prices of pharmaceuticals by allowing companies that produce generic-equivalent drugs to enter the market before expiration of the patent on the brand-name drug.²¹⁴ Canadian companies were allowed to market generic versions of patented drugs for a minimal royalty fee (usually four percent of sales). This effectively negated the original drug's patent protection by eliminating the patent-holder's market exclusivity.²¹⁵ Compulsory licensing drove down prices for the patented drugs,

209. See Eileen McMahon, *NAFTA & the Biotechnology Industry*, 33 CAL. W. L. REV. 31 (1996).

210. See Noah, *supra* note 208, at 1296.

211. See *id.* at 1315; Arvin P Shroff, *FDA Enforcement Initiatives in the United States & Abroad*, 49 FOOD & DRUG L.J. 575, 579 (1994).

212. See Joel Lexchin, M.D., *Pharmaceuticals, Patents & Politics: Canada & Bill C-22* (Feb. 1992) (paper prepared for The Canadian Centre for Policy Alternatives) (reviewing Canada's unique history of using its patent laws to encourage price competition in pharmaceuticals).

213. See Act to Amend the Patent Act, the Trade Marks Act & the Food & Drugs Act, S.C. 1968–69, ch. 49, § 1 (1968) (Can.).

214. See R.S.C., ch. 49, §§ 7–18. See generally Lexchin, *supra* note 212, at 1; Margaret Smith, *Patent Protection for Pharmaceutical Products* (Nov. 1993) (Background paper, Research Branch, Library of Parliament). This compulsory licensing scheme eventually led to the growth of a generic drug industry in Canada. See ICN Pharmaceuticals, Inc. v. Patented Med. Prices Review Bd. [1996] 138 D.L.R.4th 71, 76 (reviewing the history of patent legislation relating to pharmaceuticals, compulsory licensing, and price controls).

215. See R.S.C., ch. 49, § 1 *et seq.* (1997). See generally *Novopharm Ltd. v. Janssen Pharmaceuticals N.V.* [1992] 41 C.P.R.3d 384, 387–89 (refusing to require more than a four percent royalty to be paid to the patent-holder); *Novopharm Ltd. v. Yamanouchi Pharmaceuticals. Co.* [1989] 27 C.P.R.3d 249, 253 (same).

thus making it more difficult for manufacturers to recoup their substantial research and development expenses.²¹⁶ In contrast, generic equivalents may not be marketed in the United States until the full patent term of the original drug has expired.²¹⁷ Understandably, the patent-holders, usually foreign companies, challenged the granting of many of these compulsory licenses, but the Canadian courts consistently upheld the practice.²¹⁸

The United States considered Canada's compulsory licensing scheme as a "trade irritant."²¹⁹ Although Canada represents only two percent of the world's pharmaceutical market, multi-national drug companies were "horrified that compulsory licensing would set a precedent."²²⁰ It was an issue during the negotiations for the *Free Trade Agreement* (FTA) between the United States and Canada, but it was not specifically addressed in the final text of the FTA.²²¹

By 1987, Parliament concluded that "compulsory licensing had encroached too far into the patentee's sphere of exclusivity, resulting in a decrease in research and development of new medicines in Canada."²²² In an attempt to strike a balance between encouraging pharmaceutical innovation and providing the public with reasonably priced drugs, Parliament passed Bill C-22, which modified the compulsory licensing scheme to grant patent-holders the exclusive right to market the drug for the first seven years of the patent term.²²³ This still allowed compulsory

216. See Noah, *supra* note 208, at 1300.

217. See 21 U.S.C. § 355(j)(4)(D) (1994).

218. See Lexchin, *supra* note 212, at 2. These compulsory licenses were heavily litigated. By 1971, of the 69 compulsory licenses issued, 43 were appealed in the courts. See *id.* See also, e.g., Novopharm [1992] 41 C.P.R.3d 384; Novopharm [1989] 27 C.P.R.3d 249.

219. See Lexchin, *supra* note 212, at 4 (quoting the 1985 annual report of a U.S. Trade representative). Drug patents were one of the key agenda items at a summit meeting in 1985 between then-President Ronald Reagan and then-Prime Minister Brian Mulrooney. See *id.*

220. Thomas Walkom, *Patent Drug Review a Bitter Pill for Critics*, TORONTO STAR, Apr. 27, 1997, at F4.

221. See Lexchin, *supra* note 212, at 4-5. Lexchin's position is that Mulrooney's Conservative government bargained away the compulsory licensing system in return for passage of the FTA. See *id.* at 5.

222. ICN Pharmaceuticals, Inc., 138 D.L.R. 4th at 76 (reviewing the circumstances around passage of Patent Act, R.S.C., ch. P-4, § 39 (1985), as amended at S.C. 1987, ch. 41).

223. See An Act to Amend the Patent Act, 1987 S.C. ch. 41 (most commonly referred to as "Bill C-22"). This modified form of compulsory licensing continued to be upheld by

licensing, but at least guaranteed to the patent-holder an initial period of market exclusivity in which to recoup research and development costs.

NAFTA allows compulsory licensing only under very limited circumstances.²²⁴ In 1993, in anticipation of NAFTA requirements, the Canadian Parliament enacted Bill C-91 to eliminate compulsory licensing.²²⁵ Furthermore, NAFTA required that patent protection be the same for all industries. Bill C-91 also extended patent protection for pharmaceuticals from seventeen to twenty years, the standard for other products, and moved to a first-to-file system.²²⁶ As a result, instead of patent protection being granted for seventeen years from the date issuance, the patent period now runs for twenty years from the date the patent application was filed.

In 1994, the United States increased its patent protection term for prescription drugs from seventeen to twenty years.²²⁷ The patent term can be further extended under the Drug Price Competition & Patent Term Restoration Act, which allows five year extensions of patent protection beyond the twenty year period under limited circumstances (generally related to regulatory delays).²²⁸

NAFTA specifically permits the extension of a patent term to compensate for delays caused by the regulatory approval

the courts. See, e.g., *Novopharm Ltd. v. G.D. Searle & Co.* [1991] 40 C.P.R. 3d. 56 ("The possible effects of the grant of a license on the patentee's Canadian operations cannot outweigh the clear objective of the compulsory license provision in the Act to reduce the price of drugs by introducing the element of competition.").

224. See NAFTA, art. 1709(10).

225. See An Act to Amend the Patent Act, 1993 S.C., ch. 2, § 3, Patent Act, R.S.C., ch. P-4, § 39 (1997) (most commonly referred to as "Bill C-91"). See also NAFTA, art. 1709(12). See generally ICN, 138 D.L.R.4th, at 77 (citing NAFTA as a "primary motivation" for the 1993 amendment).

226. See Blake et al., *Developments in Canadian Law Relating to Food, Drugs, Devices & Cosmetics as of December 1992*, 49 FOOD & DRUG L.J. 323, 332 (1994). See also Smith, *supra* note 214, at 6, 15.

227. See 35 U.S.C. § 154(b)(1994). This statute codified the Uruguay Rounds Agreement Act, Pub. L. No. 103-465, § 532, 108 Stat. 4983(1994). See VanHuysen, *supra* note 15, at 489 n.86.

228. See Drug Price Competition & Patent Term Restoration Act, Pub. L. No. 98-417, 98 Stat. 1585 (1984), codified at 35 U.S.C. § 156 (1994). See also Smith, *supra* note 214, at 10-11. This Act was passed in the 1980s, when lengthy regulatory delays were common. These extensions of the patent term therefore "restored" effective patent life that had been consumed in the regulatory process.

process.²²⁹ This affords Canada, in light of its lengthy regulatory approval process, the opportunity to follow the U.S. model and adopt a patent term restoration act. Currently, patent terms can be extended in Canada by a specific act of Parliament, but only on a drug-by-drug basis.²³⁰ If Canada is unable to reduce its new drug approval times, pressure from the pharmaceutical industry for patent term extension legislation is likely to increase.

Canada's Bill C-91 included a sunset provision and was up for review in 1997.²³¹ In February 1997, a parliamentary committee began reviewing the C-91 legislation.²³² Groups both supporting and opposing renewal of C-91 heavily lobbied the committee.²³³ Generic drug companies would benefit from the repeal of C-91 and a return to compulsory licensing.²³⁴ Some public interest groups, fearing escalating drug prices, also favored repeal of C-91.²³⁵ The multi-national drug companies were naturally in favor of retaining C-91 and feared a return to compulsory licensing, with its inherent limitations on patent-holder profits.²³⁶

229. See NAFTA, art. 1709, ¶ 10. See also Blake et al., *supra* note 226, at 334.

230. Smith, *supra* note 214, at 9.

231. See Jim Beatty, *National Drug Plan Proposal Wins Qualified Approval*, VANCOUVER SUN, Apr. 17, 1997, at B3; Walkom, *supra* note 220, at F4.

232. See *Coalition Calls for Change in Drug Patents*, CATHOLIC NEW TIMES, Feb. 9, 1997, at 2 [hereinafter CATHOLIC NEW TIMES].

233. See Beatty, *supra* note 231. Lobbying groups included the Canadian Drug Manufacturers Association (CDMA), a lobby group for the generic industry; the Pharmaceutical Manufacturers' Association of Canada (PMAC), a lobby group for the brand-name firms; and the Canadian Health Coalition (CHC), which lobbied against the renewal of C-91, with "protecting the public from private greed" as the theme for their campaign. See Walkom, *supra* note 220, at F4; CATHOLIC NEW TIMES, *supra* note 232, at 2.

234. The use of generic substitutes is widespread in Canada, because almost every province requires generic substitution for any drugs subsidized through government plans. See Lucas, *supra* note 156, at 50. Generic products account for about 10% of the Canadian drug market. See U.S. GENERAL ACCOUNTING OFFICE, *PRESCRIPTION DRUGS: COMPANIES TYPICALLY CHARGE MORE IN THE UNITED STATES THAN IN CANADA 1* (GAO/HRD-92-110, Sept. 1992) [hereinafter GAO/HRD-92-110]. Canadians save C\$800 million annually by choosing generic drugs in place of brand name equivalents, according to a study by the Canadian Drug Manufacturers Association, released in February 1997. See CATHOLIC NEW TIMES, *supra* note 232, at 2.

235. See *id.*

236. The Canadian brand-name pharmaceutical manufacturers claim that they receive less patent protection for their products than in the United States, Japan or the European Community, and therefore Canada is less able to attract pharmaceutical research investment. See Lucas, *supra* note 156, at 50. "A major product coming off patent has a devastating impact on a company—dramatically eroding sales, virtually overnight." See *id.* at 49. "Without the 20-year patent protection available in just about every other

Much of the debate surrounding the renewal of Bill C-91 centered on the interpretation of NAFTA.²³⁷ The Industry Minister and Health Minister argued that NAFTA obligations required the renewal of C-91.²³⁸ Other trade experts, however, believed there were loopholes in NAFTA that would allow the government to return to a compulsory licensing system.²³⁹ Still other experts suggested that it would be difficult to convince a court or international dispute panel that compulsory licensing could be made consistent with Canada's international obligations under NAFTA.²⁴⁰ In the end, this latter view prevailed, and when the Parliamentary committee released its recommendations to the government in April 1997, it recommended retaining C-91.²⁴¹

2. Canada's Patent Medicine Price Review Board (PMPRB)

The elimination of compulsory licensing in Canada was expected to cause a dramatic increase in pharmaceutical prices.²⁴² As a political compromise, the establishment of price controls on patented medicines accompanied the elimination of compulsory licensing.²⁴³ The Patented Medicine Prices Review Board (PMPRB) was established under Bill C-22 in 1987,²⁴⁴ and was given additional authority under Bill C-91 in 1993.²⁴⁵ The PMPRB is an independent quasi-judicial body that has the authority to investigate and regulate excessive pricing of patented

developed country in the world, Canada can expect to fall behind in terms of . . . Canadian-based research and development." *Id.* at 51-52.

236. *See id.*

237. *See Walkom, supra* note 220, at F4.

238. *See id.*

239. *See id.*

240. *See id.*

241. *See Commons Drug Review Backs National Drug Plan*, EDMONTON J., Apr. 25, 1997, at A13. Although review of C-91 was the extent of the committee's mandate, it also made some other surprise recommendations, including the establishment of a national "pharmacare" program. *See id.* Drugs are not currently covered under the provincial health plans that provide medical care to all Canadian citizens. The committee also recommended reviewing the C-91 regulations. *See id.*

242. *See Noah, supra* note 208, at 1300, n.33 (citing a government source, which estimated that elimination of compulsory licensing would raise Canadian drug expenditures by C\$129 million over the first five years).

243. *See Ed Hore, Intellectual Property: Patent & Copyright Law*, CANADIAN LAW., Feb. 1997, at 34.

244. *See An Act to Amend the Patent Act*, 1987 S.C. ch. 41.

245. *See An Act to Amend the Patent Act*, 1993 S.C. ch. 2, § 7(80) to (82) (strengthening the Board's remedial and punitive powers).

pharmaceutical products in Canada.²⁴⁶

The PMPRB's determination as to whether the price of a drug is excessive is based on a comparison between the Canadian price and the price in other markets, the price of similar medicines within Canada, and changes in Canada's Consumer Price Index.²⁴⁷ The PMPRB may also consider the cost of making and marketing the drug, but will not generally consider research costs.²⁴⁸ If the PMPRB determines the price of a drug is excessive, it will first try to induce the manufacturer to voluntarily reduce the price.²⁴⁹ The PMPRB has been successful in most cases in persuading drug manufacturers to comply voluntarily with its guidelines.²⁵⁰ If necessary, the PMPRB can hold a public hearing after which it can either order the manufacturer to reduce the price or take away the manufacturer's market exclusivity for the drug.²⁵¹ The PMPRB can even require the patent owner to reduce the price of *another* drug or remit money to the government.²⁵² With these measures, the PMPRB appears to have successfully restrained Canadian drug price increases.²⁵³

The PMPRB has withstood a number of challenges to its authority. Pharmaceutical companies unsuccessfully argued that establishment of the PMPRB was *ultra vires* the Parliament of Canada, because the purpose of the PMPRB was to regulate drug prices, and therefore, was a matter of property and civil rights under provincial jurisdiction, rather than a matter relating to federal patent jurisdiction.²⁵⁴ In *Re Manitoba Society of Seniors*, the Manitoba Court of Appeals held that the PMPRB's control of excessive prices was incidental to its primary purpose of increasing patent protection for new medicines, and therefore, was within federal jurisdiction.²⁵⁵

246. See Smith, *supra* note 214, at 5-6.

247. S.C. 1993, ch. 2, § 7(85)(1)). See also Blake et al., *supra* note 226, at 328-29.

248. Blake et al., *supra* note 226, at 329.

249. See GAO/HRD-92-110, *supra* note 234, at 37.

250. See U.S. GENERAL ACCOUNTING OFFICE, PRESCRIPTION DRUG PRICES: ANALYSIS OF CANADA'S PATENTED MEDICINE PRICES REVIEW BOARD 7 (GAO/HRD-93-51, Feb. 1993) [hereinafter GAO/HRD-93-51]. Compliance with the price guidelines for new drugs has usually been achieved within 90 days of product introduction. See *id.*

251. See GAO/HRD-92-110, *supra* note 234, at 16.

252. S.C. 1993, ch. 2, §§ 7(83)(2)-(4). See also Blake et al., *supra* note 226, at 329.

253. See GAO/HRD-92-110, *supra* note 234, at 16.

254. *Re Manitoba Soc'y of Seniors & Attorney-Gen. of Canada* [1991] 35 C.P.R.3d. 66, *aff'd* 45 C.P.R.3d 194 [1993].

255. *Manitoba Soc'y*, 35 C.P.R.3d at 73. The Manitoba Court of Appeal held that

Because the price regulation applies only to patented drugs, some pharmaceutical companies have attempted to avoid the PMPRB by “dedicating” the patent for a drug to the Canadian public.²⁵⁶ This method of “donating” a patent to the Canadian people is not mentioned in the Patent Act, but has been recognized by the Commissioner of Patents.²⁵⁷ Dedication of patents to the public used to be very rare; however, with the creation of the PMPRB in 1987, “[m]any drug companies suddenly became interested in making a magnanimous dedication of their valuable patent rights to the people of Canada.”²⁵⁸ The drug companies intended to sacrifice their patent protection to avoid price regulation, gambling that regulatory delays would leave them a few years of market exclusivity before generic versions were approved for sale.²⁵⁹ The PMPRB ruled, however, that such patent “dedications” do not avoid the Board’s jurisdiction over the prices of these drugs.²⁶⁰ Because patent dedication was not mentioned in the Patent Act, but was only an administrative policy, the PMPRB reasoned that the dedication could be ignored.²⁶¹

In 1996, in *ICN Pharmaceuticals v. PMPRB*, a pharmaceutical company challenged the jurisdiction of the PMPRB, but the Federal Court of Appeal interpreted the Patent Act to give the PMPRB very wide jurisdiction.²⁶² According to the *ICN* court, the PMPRB has jurisdiction to monitor prices if there is a patent “pertaining to” the product, even if the patent-holder’s use of the product falls outside the patent claims.²⁶³ The court held that the powers of the PMPRB should be construed broadly because its legislative purpose was to replace the previous price controls under the compulsory licensing system, which itself had been

“[t]he impugned legislation is in pith and substance in relation to matters within Parliament’s exclusive jurisdiction over patents.” 45 C.P.R.3d at 195.

256. See Hore, *supra* note 243, at 36. See also Blake et al., *supra* note 226, at 324.

257. See Hore, *supra* note 243, at 36.

258. See *id.*

259. See *id.*

260. This PMPRB ruling was upheld in *Genentech, Inc. v. Patented Med. Prices Review Bd.* [1992] 44 C.P.R. 3d 335 (holding that dedication of patents to the public does not terminate the PMPRB’s jurisdiction). See also Hore, *supra* note 243, at 36.

261. See Hore, *supra* note 243, at 36.

262. *ICN*, 138 D.L.R.4th at 71 (construing the Patent Act, R.S.C. 1985, ch. P-4, §§ 83(1) and 79(2), as amended).

263. See *id.* at 93.

construed broadly in the courts.²⁶⁴

Parliament may also broaden the powers of the PMPRB. In April 1997, the parliamentary committee reviewing the renewal of C-91 recommended greater powers for the PMPRB, including expanding its authority to non-patented drugs.²⁶⁵

Like its Canadian counterpart, the U.S. government is concerned about increases in pharmaceutical prices.²⁶⁶ Studies by the U.S. Government Accounting Office have found that the prices of some prescription drugs in the United States are substantially higher than in other countries.²⁶⁷ In particular, prices for identical prescription drugs are typically higher in the United States than in Canada.²⁶⁸ A sample of prices for 121 commonly prescribed drugs indicated thirty-two percent higher costs in the United States.²⁶⁹ This difference is largely attributable to the Canadian government actions to restrain drug prices.²⁷⁰

As a result, the U.S. Congress considered legislation to regulate drug prices.²⁷¹ Some of these bills would have created a federal agency, modeled after Canada's PMPRB.²⁷² Such a federal board, however, might not be as effective in the United States because the United States, unlike Canada, is home to a

264. *See id.*

265. *See* Canada, Apr. 21-30: Pharmaceuticals, International Market Insight Reports, May 1, 1997 (telegraphic report from the American Embassy in Ottawa; available in 1997 WL 10397496). *See generally* Wayne Kondro, *Canada's Drug Industry Put Under Pressure*, 349 THE LANCET 1304 (1997).

266. During the 1980s and 1990s, the prices of prescription drugs increased at three times the rate of inflation. *See* U.S. GENERAL ACCOUNTING OFFICE, PRESCRIPTION DRUG PRICES: OFFICIAL INDEX OVERSTATES PRODUCER PRICE INFLATION 1 (GAO/HEHS-95-90, Apr. 1995) [hereinafter GAO/HEHS-95-90]. The growth in U.S. drugs prices, however, has declined since 1990, consistent with drug manufacturers' public pledges of self-restraint in pricing. *See* U.S. GENERAL ACCOUNTING OFFICE, PRESCRIPTION DRUGS: COMPANIES TYPICALLY CHARGE MORE IN THE UNITED STATES THAN IN THE UNITED KINGDOM 3 (GAO/HEHS-94-29, Jan. 1994) [hereinafter GAO/HEHS-94-29].

267. *See* GAO/HRD-92-110, *supra* note 234, at 37.

268. *See id.* at 2.

269. *See id.*

270. *See id.* This includes provincial, as well as federal government actions. Provincial actions include the use of concentrated buying power to obtain low prices for the provincial drug plans. *See id.* at 3. Provincial laws and regulations are beyond the scope of this article.

271. *See* GAO/HRD-93-51, *supra* note 250, at 1. At least eleven such bills were introduced in the 102nd Congress, but none were enacted. *See id.*

272. *See id.*

strong, research-oriented pharmaceutical industry.²⁷³ Price restraints might adversely effect pharmaceutical research and development, as well as the availability of new drug products in the United States.²⁷⁴ Furthermore, in Canada, the pharmaceutical market is heavily influenced by the provincial drug plans which are among the largest purchasers of drugs, and which require generic-equivalents because they are typically available at a lower price.²⁷⁵ In contrast, the U.S. health care market is dominated by private payors without such concentrated buying power and without a uniform demand for the generic products. While it deserves additional study, it is not clear that a Canadian-style price review board would be appropriate for the U.S. regulatory scheme.

*B. Reinventing Drug Regulation: Teaching the Elephant to Dance*²⁷⁶

With the advent of the Clinton Administration's Reinventing Government Initiative, the FDA became a "priority target" for reform efforts.²⁷⁷ Beginning in 1994, the agency undertook a number of self-examination and reform projects.²⁷⁸ These included publication of a report, *Reinventing Drug & Medical Device Regulations*, identifying areas of the regulatory process which could be reduced or eliminated without lowering health or safety standards, and the subsequent reforms of the Food and Drug Modernization Act of 1997.²⁷⁹

This initiative has a counterpart in Canada's Regulatory Efficiency Act, which has similarly tried to streamline processes and reduce bureaucracy in an effort to control the federal

273. See GAO/HEHS-94-29, *supra* note 266, at 2.

274. See GAO/HRD-92-110, *supra* note 234, at 22.

275. See *id.* at 15.

276. David Kessler, upon becoming Commissioner of the FDA in 1991, promised Congress that he "would teach the elephant to dance." Quoted in Henry Miller, *Anti-Medicine Man: Commissioner David A. Kessler*, NAT'L REV., Oct. 9, 1995, at 48.

277. See Joel E. Hoffman, *Public Participation & Binding Effect in the Promulgation of Nonlegislative Rules: Current Developments at the FDA*, ADMIN. & REG. L. NEWS, Spring 1997, at 11.

278. See *id.*

279. See PRESIDENT BILL CLINTON & VICE PRESIDENT AL GORE, REINVENTING DRUG & MEDICAL DEVICE REGULATIONS, NAT'L PERFORMANCE REV. 1 (1995) [hereinafter CLINTON & GORE]; Food and Drug Modernization Act of 1997, Pub. L. No. 105-115, 111 Stat. 2296 (1997) (enacting many FDA initiatives undertaken under the Administration's Reinventing Government program).

deficit.²⁸⁰ In addition, Canada's Minister of Health and Welfare commissioned a study in 1992 by Dr. Denis Gagnon of the Université Laval, who produced a report containing 152 recommendations for revising the Canadian regulatory model and drug approval processes.²⁸¹ The Therapeutic Products Directorate has implemented or plans to implement ninety of these recommendations.²⁸²

Both countries have adopted new strategies to change the regulation of the drug industry, with an emphasis on reducing the time required for the new drug approval process. Techniques include shifting some of the costs of regulation to industry through user fees, and using non-agency experts to leverage agency personnel.

1. User Fees

Most departments of the Canadian federal government have adopted new cost recovery programs, wherein corporations pay the majority of the costs of services provided to them.²⁸³ In 1995, the Therapeutic Products Directorate followed this trend against strong industry opposition by instituting fees for its services, including issuance of DIN numbers, annual licensing and evaluations of New Drug Submissions.²⁸⁴ Costs to the pharmaceutical industry are expected to reach C\$40 million annually.²⁸⁵ This user fee system has raised some concerns in Canada that only the large pharmaceutical companies will be able to pay the fees, and smaller companies will not survive.²⁸⁶ It has also been suggested that pharmaceutical companies are becoming more demanding with respect to approval times from the Therapeutic Products Directorate since they are paying for such services.²⁸⁷ This has led to concerns that drug safety might be compromised by succumbing to industry pressure to speed up the

280. See McMahon, *supra* note 209, at 79.

281. See *id.* at 81, 85-101.

282. See *id.* at 81.

283. See *id.* at 47.

284. See *id.* at 1.

285. See *id.* at 2.

286. See Maureen Moore, *Drugs Weren't Mother Bunny's Cup of Tea*, VANCOUVER SUN, Mar. 19, 1997, at A15.

287. See *Canada: User Fees Raise Safety Fears*, MARKETLETTER, July 21, 1997 (British newsletter, available in 1997 WL 11870690).

approval process—a charge vehemently denied by the HPB.²⁸⁸

Similarly, the U.S. Congress passed the Prescription Drug User Fee Act of 1992 (PDUFA) to provide the FDA with additional resources to expedite drug reviews and approval.²⁸⁹ Fees are now charged for submission of an NDA, annual licensing for each prescription drug being marketed, and an annual fee for each manufacturer.²⁹⁰ Congress gave the FDA five years to speed up its NDA review process across the board, along with the power to collect more than \$300 million from drug companies to help accomplish this goal.²⁹¹ The money has been used to computerize the system and to hire 600 new reviewers.²⁹² Under PDUFA, the FDA is expected to perform a complete review of an NDA within six months after submission for priority applications, and within twelve months for standard applications.²⁹³ The average approval time for priority applications fell short of that goal at 8.9 months for 1997. However, the FDA succeeded in reducing the median approval time for standard applications to twelve months.²⁹⁴ The Clinton Administration maintains that this expedited approval process can be done without any sacrifice in review quality.²⁹⁵

In the United States, concerns about the ability of small drug companies to afford these user fees were addressed by including a small business exception in the PDUFA.²⁹⁶ Pharmaceutical

288. *See id.*

289. *See* Prescription Drug User Fee Act of 1992, Pub. L. 102-571, 106 Stat. 4491 (1992), *codified at* 21 U.S.C. §§ 379(g) to 379(h) (1994). *See also* GAO/PEMD-96-1, *supra* note 158, at 3 n.4.

290. *See* 21 U.S.C. § 379h (1994). *See also* U.S. GENERAL ACCOUNTING OFFICE, FDA USER FEES: CURRENT MEASURES NOT SUFFICIENT FOR EVALUATING EFFECT ON PUBLIC HEALTH 2 (GAO/PEMD-94-26, July 1994) [hereinafter GAO/PEMD-94-26].

291. *See* 21 U.S.C. § 379h(b)(1) (1994). This legislation was reauthorized for an additional five years by the Food and Drug Modernization Act of 1997, 21 U.S.C.A. § 379g (1997).

292. *See* Elizabeth M. Rutherford, *The FDA & "Privatization"—The Drug Approval Process*, 50 FOOD & DRUG L.J. 203, 217 (1995).

293. *See* 21 U.S.C. § 355(c) (1994). *See also* GAO/PEMD-96-1, *supra* note 158, at 9 n.9.

294. *See* FDA's *Final Performance Report Under PDUFA*, MARKETLETTER, Dec. 22, 1997, available in 1997 WL 14510777. This was accomplished despite the fact that the number of drug applications increased by 50%. *See id.* *See also* HHS *Continues Progress Toward Key Goals in 1997*, U.S. NEWSWIRE, Dec. 30, 1997, available in 1997 WL 13915312. The FDA's goal was to meet this 12 month approval time by the end of 1997. *See* GAO/PEMD-96-1, *supra* note 158, at 9 n.9. Between 1987 and 1993, only 67% of NDAs met this goal. *See id.*

295. *See* CLINTON & GORE, *supra* note 279, at 3.

296. *See* Pub. L. 102-571 § 103(2), *codified at* 21 U.S.C. § 379h(d) (1994).

companies with fewer than 500 employees pay only one-half of the human drug application fee. Full annual licensing fees, however, are still required.²⁹⁷ The imposition of user fees may ultimately have the effect of inhibiting pharmaceutical research and development, especially among smaller companies. The FDA does have the flexibility, however, to waive the user fees altogether in instances where the fees would be unduly burdensome, e.g., for small businesses or where the fee would create a significant barrier to innovation.²⁹⁸

2. Expert Committees

The HPB uses Expert Advisory Committees to augment the expertise of its own staff. These Committees are comprised of individuals with expert knowledge and judgment in specific scientific, technical or medical fields.²⁹⁹ Typically, an outside expert committee conducts the first review of an NDS.³⁰⁰ This practice has been criticized as leading to inexperienced reviews and conflicts of interest.³⁰¹ "Some outside reviewers receive only one or two days' training and are poorly supervised, . . . [or] have close ties with drug companies—conducting tests for them, preparing their submissions for drug approval or acting as consultants."³⁰² The use of outside reviewers to speed up the drug approval process has raised concerns that the health and safety of Canadians will be compromised.³⁰³ Furthermore, in July 1997, as part of a deficit-cutting program, Health Canada closed down the Bureau of Drug Research (a division of the Therapeutic Products Directorate), which helped review drug submissions and support government regulators.³⁰⁴ This led to greater fears that the HPB would become too reliant on outside experts with ties to the pharmaceutical companies, and thus lose its ability to make independent drug assessments.³⁰⁵ Some health policy consultants

297. *See id.*

298. *See* Pub. L. 102-570, 106 Stat. 4496 (1992).

299. *See* HPB, *supra* note 68, at 14.

300. *See id.* at 27.

301. *See* Regush, *supra* note 170; Nicholas Regush, *Experts Question Objectivity of Private Drug Reviewers*, OTTAWA CITIZEN, June 8, 1992, at A4.

302. *See* Regush, *supra* note 170.

303. *See id.*

304. *See* Laura Eggertson, *Rock to Investigate Laboratory Cutbacks: Cutting Research Staff Called Threat to Safety*, GLOBE & MAIL, July 16, 1997, at A4.

305. *See id.* *See also* Kathryn May, *Health Canada Considers Downsizing its Drugs*

believe there is too much money at stake in gaining marketing approval for a new drug to trust the pharmaceutical companies to provide unbiased information.³⁰⁶

In the early 1990s, the United States implemented a small-scale trial of outside reviewers, "farming out" the approval process for eight to ten drugs intended to treat non-life-threatening illnesses.³⁰⁷ The FDA never implemented this scheme on a wider scale. However, in 1995 and 1996, several FDA reform bills were introduced (though not passed) in Congress which would have encouraged the use of outside experts to perform reviews of drug applications.³⁰⁸ Critics of these bills raised the same concerns raised by Canadian commentators: Reviews by private sector experts would result in conflicts of interest, and "potentially reduce the FDA's role to rubber stamping the outside expert's recommendations."³⁰⁹ At a minimum, outside experts should be required to disclose any potential conflict of interests. An additional eligibility requirement could be that an outside expert not have worked for a drug company within one year of serving as an outside expert for the FDA.

Despite such concerns, in November 1997, Congress authorized the Secretary of DHHS to enter into contracts for expert review of applications for biological products, where the Secretary determines that such outside expert review will improve the timeliness and quality of the application or submission review process.³¹⁰ This is a first step towards the Canadian model of augmenting the government staff with outside experts. While some concerns remain, proponents argue that the use of outside experts, or even privatization of certain regulatory processes, is the only way to reverse the "risk avoidance and autocratic style of regulation" of the FDA.³¹¹

Research Labs, OTTAWA CITIZEN, Nov. 22, 1996, at A4.

306. See Eggertson, *supra* note 304, at A4.

307. See Regush, *supra* note 301.

308. See VanHuysen, *supra* note 15, at 494-95.

309. See *id.* at 495.

310. See Food and Drug Modernization Act of 1997, Pub. L. 105-115, § 415, 111 Stat. 2296 (codified at 21 U.S.C. § 397).

311. Elizabeth C. Price, *Teaching the Elephant to Dance: Privatizing the FDA Review Process*, 51 FOOD & DRUG L.J. 651, 652 (1996). The FDA has been criticized for taking a risk avoidance approach to regulation. It has been suggested that the FDA is overcautious in approving new drugs because a serious mistake will bring the wrath of Congress, consumer groups and the public down on the FDA; whereas, the consequences

C. Relationship Between the Regulator and the Regulated

As a rule, there is compliance with drug laws and regulations in both the United States and Canada; however, the source of the compliance differs. The U.S. drug regulatory system is considered more adversarial compared to the more collegial nature of the Canadian system. This may be attributable to the general sentiment that "Canadians value peace, order and good government," whereas Americans have a "deep suspicion and fear of government."³¹²

In the early days of food and drug regulation in the United States, the government placed primary emphasis on cooperation with industry, hoping for voluntary compliance that would avoid the need for legal enforcement.³¹³ By the 1930s, however, a more adversarial relationship between the FDA and the drug industry had developed as a result of increasing noncompliance and other "disreputable practices" of the drug industry.³¹⁴ The "psychological climate" had changed, and while cooperation still existed, relations between the FDA and industry had "cooled."³¹⁵ This situation has not improved over the years. In 1980, a federal study of the delays in new drug approval cited the "adversarial relationship between the FDA and pharmaceutical industry" as a major factor.³¹⁶ A federal court in 1993 characterized the relationship between the FDA and a pharmaceutical business it regulates "as a confrontation between a humorless warden and his uncooperative prisoner."³¹⁷

A drug company may be reluctant to file a lawsuit against the FDA to protect its interests, for fear of antagonizing the FDA.³¹⁸ The FDA could easily introduce delays into the approval process for any products that the drug company has submitted for approval or retaliate in other ways. A 1991 poll of companies regulated by the FDA revealed that "eighty-four percent of respondents

of delaying approval of a valuable drug tend to be much less public. See *id.* at 654-60; Quirk, *supra* note 10, at 217.

312. See Neal R. Pierce, *Americans Can Learn From Canadians About How to Build Strong, Livable Cities*, SAINT PAUL PIONEER PRESS, June 29, 1997.

313. See Young, *supra* note 12, at 154.

314. See *id.* at 155.

315. See *id.* at 156.

316. SCI. & TECH. COMMITTEE, *supra* note 26, at v.

317. *United States v. Barr Lab., Inc.*, 812 F. Supp. 458, 464 (D.N.J. 1993).

318. Price, *supra* note 311, at 653.

suppressed potentially legitimate complaints against the FDA for fear of retaliation.”³¹⁹ In *Washington Legal Found. v. Kessler*, the plaintiff alleged that “few if any companies are willing to challenge the FDA [in court, because the] FDA wields enormous power over drug and medical device manufacturers through its power to grant or deny new product applications. It is evident that manufacturers are most reluctant to arouse the ire of such a powerful agency.”³²⁰

Another reason for the drug industry’s reluctance to challenge the FDA in court is that they are likely to lose. The courts have generally upheld the rulings of the FDA, and the scope of the FDA’s authority is interpreted broadly because of the court’s sensitivity to matters of public health and consumer protection.³²¹ The courts commonly defer to the FDA’s expertise and support the agency’s decisions.³²² “No sponsor has successfully sought reversal of an FDA refusal to approve its drug. The lesson has not been lost on the vast majority of applicants who understand that the only way to secure approval of an NDA is to satisfy the agency.”³²³

Foreign drug regulators and industry officials see this adversarial relationship between the FDA and industry as unique to the United States and as an impediment to the regulatory process.³²⁴ Canada has actively avoided creating such an adversarial relationship.³²⁵ Rather, HPB officials “have opted for a co-operative and ‘open door’ policy with Canadian drug

319. Peter Brimelow & Leslie Spencer, *Food & Drugs & Politics*, FORBES, Nov. 22, 1993, at 115.

320. *Washington Legal Found. v. Kessler*, 880 F. Supp. 26, 36 (D.D.C. 1995).

321. See Wassenaar, *supra* note 2, at 210.

322. See Price, *supra* note 311, at 654 (citing, as an example, *Unimed, Inc. v. Richardson*, 458 F.2d 787 (D.C. Cir. 1972) (deferring to FDA expertise and refusing to reverse an allegedly improper denial of an NDA). See generally *United States v. C.R. Bard, Inc.*, 848 F. Supp. 287, 293 (D. Mass. 1994) (upholding a \$30 million penalty against C.R. Bard with the admonition: “[This award] should send a message to [drug companies] that to subvert the Food & Drug Administration process intended to assure the safety and effectiveness of medical products is not just wrong, it is dumb.”).

323. Price, *supra* note 311, at 654 n. 20 (quoting PETER BARTON HUTT & RICHARD A. MERRILL, *FOOD & DRUG LAW: CASES & MATERIALS* 534 (2d ed. 1991)). Peter Barton Hutt was general counsel at the FDA in the 1970s. See Quirk, *supra* note 10, at 210.

324. See GAO-HRD-80-64, *supra* note 165, at 38 (comparing drug regulation in Britain, Canada, West Germany, Switzerland, Norway and Sweden).

325. See Janis Apse, *Drug Regulation: Federal Perspectives—Outer Limits*, 1 LEG. MED. Q 242 (1977).

company officials instead of a tougher adversarial stance.”³²⁶ The HPB is proud of the congenial relationship it has with representatives of Canadian drug subsidiaries of U.S. companies.³²⁷ The HPB holds to the philosophy of voluntary compliance, and most drug manufacturers and distributors comply with the legislation.³²⁸ The HPB has chosen to rely on persuasion, education and cooperation, rather than litigation, to achieve its objectives.³²⁹ The HPB’s objective of protecting the health and safety of the public is not perceived as being at odds with the aims and objectives of the drug industry.³³⁰

In order to avoid litigation when there is a compliance problem, the HPB first consults with manufacturers, and attempts to persuade them to comply with the law.³³¹ “However, when a violation is serious, or when repeated violations that are less serious come to the attention of the HPB, the violator may be prosecuted.”³³² Nevertheless, lawsuits are filed only as a last resort.³³³ HPB representatives emphasize the lack of any type of formal hearing in the regulatory process, and perceive this as a method of avoiding the confrontational atmosphere that exists in the United States.³³⁴ The HPB’s approach to compliance procedures assures that there is little food and drug litigation in Canada.³³⁵ “Everything is done in the quiet, unobtrusive Canadian way.”³³⁶

Some commentators have criticized the HPB’s use of selective enforcement policies, arguing that it results in the denial of due process to some companies and agency decisions which are not subject to judicial review.³³⁷ Large corporations have the resources to withstand a compliance challenge, either by curing the

326. *Id.*

327. *See* Regush, *supra* note 170, at A1.

328. HPB, *supra* note 68, at 39.

329. *See* Curran, *supra* note 122, at 645.

330. *See* CURRAN, *supra* note 5, at 161.

331. *See* Curran, *supra* note 122, at 645; HPB, *supra* note 68, at 39.

332. *See* HPB, *supra* note 68, at 39.

333. *See* Curran, *supra* note 122, at 645.

334. *See* Morrison, *supra* note 110, at 640; Wassenaar, *supra* note 2, at 211.

335. *See* Curran, *supra* note 122, at 645. In fact, there are relatively few lawyers in Canada who specialize food and drug law. *See id.* at 644. *See generally* James A. Robb, *Comments & Views from the Perspective of a Canadian Food Lawyer*, 30 FOOD DRUG & COSM. L.J. 659 (1975).

336. Wassenaar, *supra* note 2, at 211.

337. *See* Wassenaar, *supra* note 176, at 454-55.

fault or defending the allegations.³³⁸ Small companies, on the other hand, are more likely be forced to pay the fine or go out of business.³³⁹ This implies a certain amount of coercion in the HPB's "voluntary compliance" approach. The fear of retaliation that exists in the drug industry in the United States is not altogether absent in the Canadian system. The HPB, like the FDA, is able to use the threat of prosecution and public exposure to coerce drug companies to follow the agency's dictates.³⁴⁰ Because prosecution under the Food and Drugs Act is so rare in Canada, the exceptions are particularly conspicuous. Canadian drug companies consider it a public relations disaster to be listed in the HPB bulletin as having been convicted under the Food and Drugs Act.³⁴¹

In addition to the problems of due process raised by selective enforcement, the "collegial attitude" itself is also viewed by some as a major defect in Canada's regulatory system.³⁴² "Many American consumer advocates and sources within the FDA . . . say this [collegial] attitude is 'naïve and very dangerous,' especially when Canadian branch-plant operations are controlled by foreign head offices."³⁴³ A senior FDA source has been quoted as saying "[t]he companies will try to get away with everything they can. None of this nice guy stuff is going to work when millions of dollars in potential profits are involved."³⁴⁴

While the American system appears to be more adversarial, and the Canadian system more collegial, the end result in each system is very similar. In most cases there is "voluntary" compliance by industry, whether out of cooperative public-health goals or due to direct or indirect coercion from the regulatory agency. Moreover, in both countries, to some degree, the

338. See Robb, *supra* note 335, at 665.

339. *Id.*

340. See Wassenaar, *supra* note 176, at 458.

341. See Robb, *supra* note 335, at 661-62. "The public relations consequences of this type of charge are difficult, if not impossible, to overcome." *Id.* See also *Genentech, Inc. v. Patented Med. Prices Review Bd.*, 44 [1992] C.P.R.3d 335, 337 (holding that the drug company's mere participation in a PMPRB hearing "would damage their reputation in the eyes of the public, as evidenced by the negative media coverage" and "any adverse determination by the Board would lead to . . . stigmatization of the applicants . . . and would irreparably harm the [drug company's] goodwill").

342. See LEXCHIN, *supra* note 32, at 187.

343. Regush, *supra* note 128, at A1.

344. *Id.*

regulated fear the power of the regulators. Regulation is, in any system, liable to be coercive to some degree, and even Canadian experts view this as "legitimate coercive intervention in . . . the public interest."³⁴⁵

VI. CONCLUSION

The pharmaceutical regulatory systems in the United States and Canada are very similar in many respects. This is not a surprise considering the common history and development of the two systems, as well as their common goal of protecting the public from unsafe drugs. Many of the substantive regulations are the same in both countries, as seen in the new drug approval process and administrative inspections. With the ratification of NAFTA, many of the differences that did exist have now been eliminated. The drive for efficiency and cost-savings may lead to the elimination of remaining differences. For example, the United States is considering legislation that would follow Canada's model of drug price regulation. Similarly, the United States is now taking steps toward the Canadian practice of using outside experts in the new drug review process.

While the two countries have substantively similar regulations, distinctions appear primarily in the areas of constitutional and administrative law. These distinctions stem from differences between the parliamentary system of Canada and the U.S. system with its separate executive and legislative branches. As discussed, the U.S. rulemaking system is more open to participation than the Canadian system. Nevertheless, there is a perception that the U.S. system is adversarial and the Canadian system is collegial. Ultimately in both systems there is mostly voluntary compliance with the regulations, and some degree of coercion by the regulatory agency. In summary, while there are some important differences between the regulatory systems of the United States and Canada, their goals and means of effectuating them are very much aligned.

345. See C. LLOYD BROWN-JOHN, *CANADIAN REGULATORY AGENCIES* 55 (1981).